R-585-3-1-12

ENVIRONMENTAL PRIORITIES INITIATIVE PRELIMINARY ASSESSMENT OF SKF BALL BEARINGS DIVISION PREPARED UNDER

TDD NO. F3-9012-17
EPA DSN PA-2825
FACILITY ID NO. PAD004344172
CONTRACT NO. 68-01-7346

FOR THE

HAZARDOUS SITE CONTROL DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

JULY 5, 1991

NUS CORPORATION
SUPERFUND DIVISION

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SECTION 1

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1.0 INTRODUCTION

1.1 Authorization

NUS Corporation performed this work under Environmental Protection Agency Contract No. 68-01-7346. This specific report was prepared in accordance with Technical Directive Document No. F3-9012-17 for the SKF Ball Bearings Division site, located in Altoona, Blair County, Pennsylvania.

1.2 Scope of Work

NUS FIT 3 was tasked to conduct an Environmental Priorities Initiative (EPI) preliminary assessment of the subject site.

1.3 Summary

The SKF Ball Bearings Division, located at 1000 Logan Boulevard, Altoona, Blair County, Pennsylvania, is a ball bearing manufacturer. In the manufacturing process, machining, heat-treating, grinding, honing, and assembly and packaging operations are performed. Wastes generated from the manufacturing process include waste hydraulic oil, water-soluble synthetic coolant, cutting oil, machining chips, grinding scrap (metal chips, used grinding wheels, coolant), solvents, and acid. The site has been owned and operated by the SKF Ball Bearings Division since approximately 1951. Before 1951, the site was a shirt factory.

SKF Ball Bearings Division currently generates and temporarily stores hazardous wastes under EPA ID No. PAD004344172. Currently, the facility generates two types of spent solvents: 1,1,1-trichloroethane (1,1,1-TCEA) and low-odor paraffin solvent (LOPS). Safety-Kleen (EPA I.D. No. ILD051060408) transports and reclaims the 1,1,1-TCEA. Filters associated with the 1,1,1-TCEA degreasing operation are drummed with the waste 1,1,1-TCEA, taken to Safety-Kleen, and incinerated. The spent LOPS is stored in an above-ground wastewater storage tank. Before 1988, the facility also stored heat-treated salt waste (oxidizer) under EPA ID No. PAD004344172.

The majority of oils and water-soluble coolants used in the manufacturing processes are recirculated. Liquid wastes that are not recirculated are drained into a centralized containment pit and periodically transferred to the above-ground wastewater storage tank.

SKF Ball Bearings Division held permit no. 300637 for solid waste disposal and a temporary air emissions permit (no. 7-301-022) from 1976 until sometime in the mid-1980s for the incineration of miscellaneous trash and paper, wooden pallets, kerosene-oil mixture, and tramp oil. The company is currently authorized to discharge non-contact coolant water from the air conditioning chilling unit into Mill Run under NPDES Permit No. PA0083810. SKF Ball Bearings Division has a publicly owned treatment works permit for boiler blow-down and sewage wastewater from the facility.

The facility uses a mist fan collection system with a bag-type filter in the grinding area. The filters, containing dirt and water-soluble coolant, are disposed in the outside bin with the residual nonhazardous swarf.

According to the facility's Preparedness, Prevention, and Contingency (PPC) Plan, two pollution incidents occurred on or about May 1, 1978 and June 6, 1978. Both events involved spillage of small quantities of waste oil and water-soluble waste coolant into a storm sewer opening during transfer of the waste from a former above-ground storage tank to a tank truck. SKF was fined for both discharges by the commonwealth of Pennsylvania.

On July 12, 1984, a Notice of Violation was issued to SKF Ball Bearings Division for failure to comply with the 90-day storage limit of on-site hazardous wastes and requirements relating to the PPC Plan and emergency procedures.

In December 1988, SKF Ball Bearings Division was notified in a Letter-Agreement by the Pennsylvania Department of Environmental Resources (PA DER) of several violations of the Pennsylvania Solid Waste Management Act.

Fourteen solid waste management units (SWMUs) have been identified for the site: the former above-ground storage tank area, the former underground storage tank area (1988), the area of stockpiled soil from 1988, the former underground storage tank area (1990), the area of stockpiled soil from 1990, the current above-ground storage tank area, the dump truck storing nonhazardous swarf and filters, the former hazardous waste drum storage area, the current hazardous waste drum storage area, the wastewater holding pit, the chip hopper, the containment tank for quench oil, the former incinerator, and the mist fan collection system. Two SWMUs are hazardous waste areas: the former hazardous waste drum storage area and the current hazardous waste drum storage area. The former hazardous waste drum storage area was located inside the facility, against the northwestern corner of the computer numerically controlled (CNC) machining area. The drums were stored on the concrete floor and there was no secondary containment. Currently, nothing is stored in this area. The current hazardous waste drum storage area is located inside the facility along the northwestern wall of the component store area. Sealed and labeled waste drums are stored on the concrete floor, and there is no secondary containment.

In October 1987, SKF began excavating the ground adjacent to the northern wall of the facility in order to construct an addition to the plant. The area to be excavated contained four 6,000-gallon-capacity underground storage tanks used to store various oils. Lancy Environmental Services removed the tanks in February 1988. PA DER was notified and approved of the tank removal plan. PA DER representatives were not present during the removal process. During the excavation, soils stained with oil and grease were encountered.

Because changes in the wastewater-handling system at the site no longer required the tanks, in November 1990, three underground storage tanks with wastewaters containing oils, cutting lubricants, and metal cuttings produced during the manufacturing process were removed by Mountain Research, Incorporated. PA DER was notified and approved of the tank removal. PA DER representatives were not present during the tank removal. During the removal process, visible oil staining and a petroleum odor were detected. Groundwater, encountered at approximately five feet, contained an oily sheen.

Residents within the study area rely on public and private supplies, utilizing groundwater and surface water sources for their water supply. The Altoona City Water Authority (ACWA), the largest water supplier within the study area, serves approximately 28,000 connections in Altoona, Bellwood, Tipton, and Juniata. ACWA utilizes 10 surface water sources and a 3-well field for its water supply. None of the surface water sources receive drainage from the site. The well field, located approximately 1.5 miles north of the site, is only used as an emergency supply. All residents not relying on public water supplies are assumed to maintain private domestic wells. The closest well used for private domestic supplies is located approximately 2.1 miles east of the site. Approximately 190 people in the study area rely on private domestic wells for potable water supply.

On January 23, 1991, NUS FIT 3 conducted an EPI preliminary assessment of the SKF Ball Bearings Division.

SECTION 2

2.0 THE SITE

2.1 Location

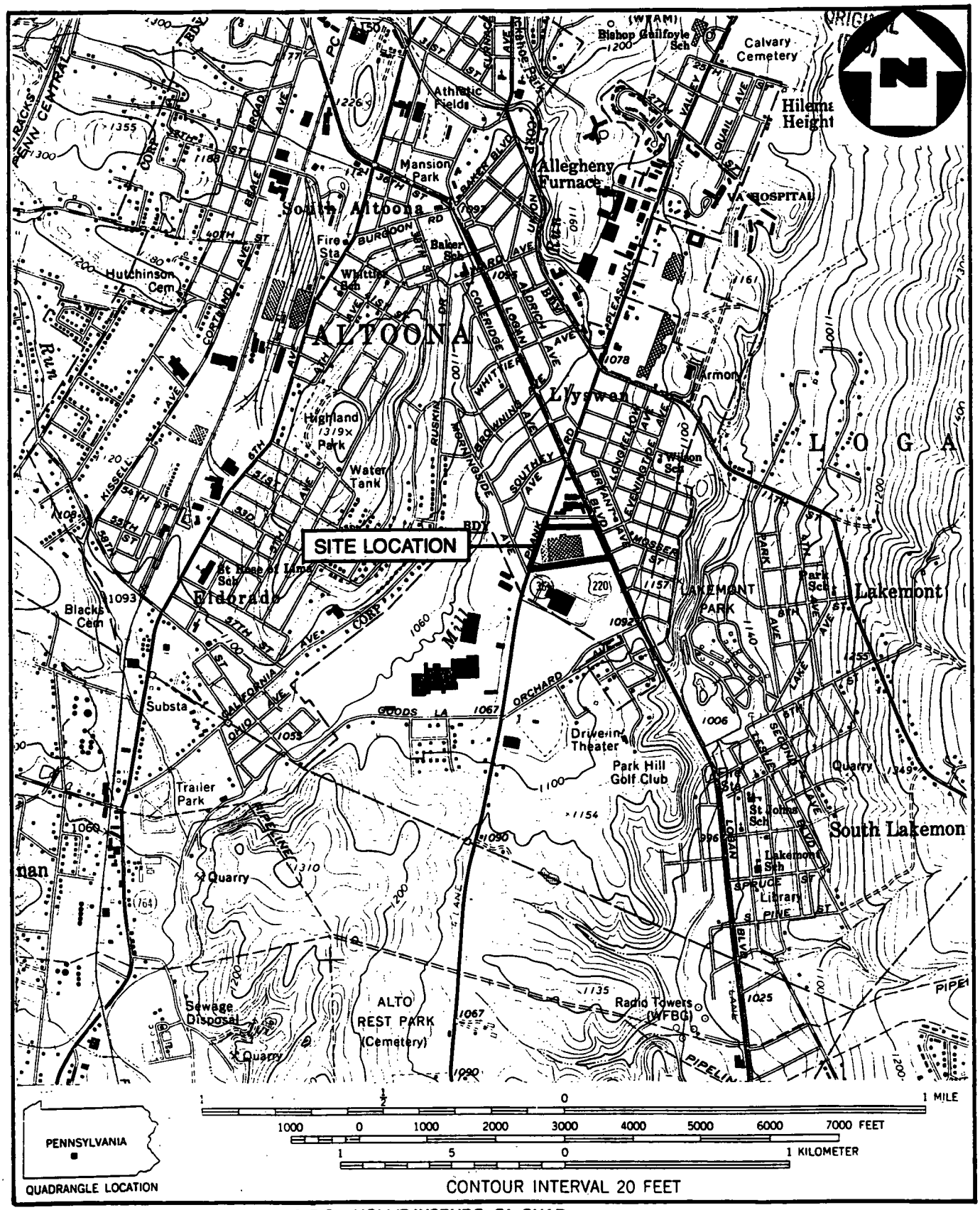
The SKF Ball Bearings site is located at 1000 Logan Boulevard in Altoona, Blair County, Pennsylvania (see figure 2.1, page 2-2). The coordinates of the site are 40° 28' 40" north latitude and 78° 24' 30" west longitude. The site can be located on the United States Geological Survey (U.S.G.S.) Hollidaysburg quadrangle by measuring four inches west and 4.75 inches south from the northeastern corner of the map.[1]

2.2 Site Layout

The site, situated on approximately 18.803 acres of land, is a ball bearing manufacturer. In the manufacturing process, machining, heat-treatment, grinding, honing, and assembly and packaging operations are performed. The various manufacturing processes and operations are contained in separate areas of the building. The building is approximately 580 feet along the north-south axis by 600 feet along the east-west axis. It is bordered on the north by Courtesy Motors (an automotive dealership), on the east by Logan Boulevard (Route 220), on the west by Plank Road (Route 36), and on the south by Penelec Road (see figure 2.2, page 2.3).[2,3,4]

The tube stock and screw machine area, measuring approximately 80 feet along the north-south axis by 300 feet along the east-west axis, is located roughly in the center of the facility. Adjacent to and northeast of this section is the surface grinding area (approximately 80 by 100 feet). The heat-treatment area, approximately 80 by 100 feet, adjoins the tube stock and screw machine area to the east. A quench oil tank (SWMU no. 12), in a secondary containment pit, is located in the heat-treatment area.[2,3]

Northeast of the tube stock and screw machine area are the grinding production and outside diameter (O.D.) grinding areas. The grinding processes do not use cutting oils. A synthetic coolant mixed with water in a self-contained system is used. Mist fan collection units (SWMU no. 14), used to remove moisture, are located throughout the grinding area (see figure 2.2, page 2-3).[2,3,4,5]



SOURCE: (7.5 MINUTE SERIES) U.S.G.S. HOLLIDAYSBURG, PA QUAD.

SITE LOCATION MAP

SKF BALL BEARING DIVISION, ALTOONA, PA

SCALE 1: 24000

FIGURE 2.1

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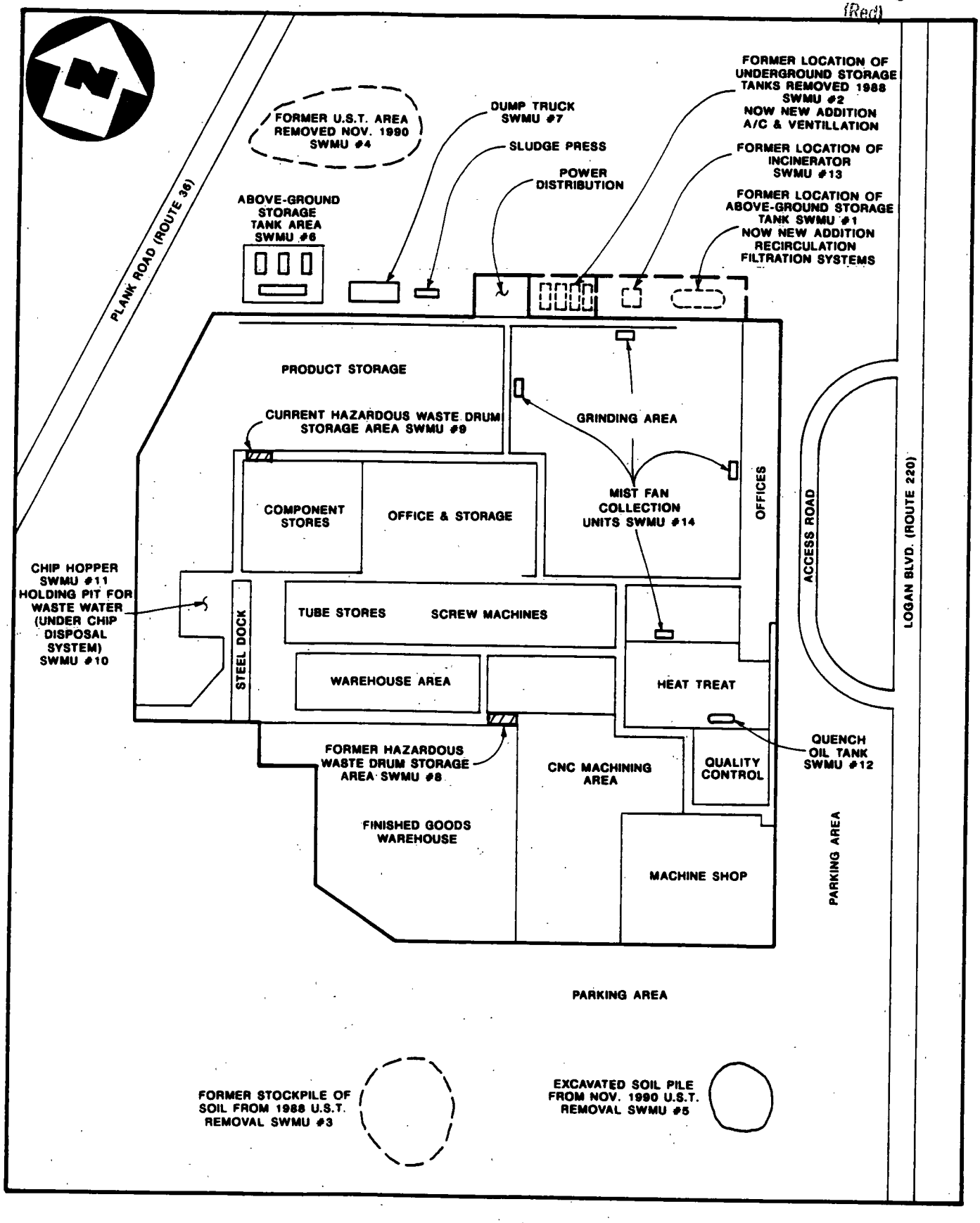

SITE SKETCH

SKF BALL BEARING DIVISION, ALTOONA, PA

(NO SCALE)

FIGURE 2.2

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Adjacent to and north of the grinding area is the recirculating filtration system, consisting of a hydromation and henry filtration unit, a honing unit, and associated clean and dirty tanks. Directly beneath the filtration units, in a large pit in the basement, are clean and dirty tanks for the hydromation and henry filtration systems and two smaller clean and dirty tanks for the honing processes. This section of the facility was added sometime during 1988. The operation of these recirculating filtration units produces a nonhazardous residual swarf. The nonhazardous swarf is pressed and the dried material is stored in a dump truck (SWMU no. 7), located next to the sludge press. The liquid waste is cycled into the centralized waste system.[2,3,4]

Adjacent to the filtration system, in the air conditioning and ventilation area, was the former incinerator (SWMU no. 13). The incinerator was decommissioned in 1984 and dismantled and removed in 1987.[6]

The former above-ground storage tank area (SWMU no. 1) was located in the vicinity of the filtration area. The tank area consisted of two tanks: one for wastewater and one for waste oil. In 1978, two pollution incidents were reported, both involving spillage of small quantities of waste material into a storm sewer. Discharge from the storm sewer is piped to a drainage ditch located along Plank Road. The drainage ditch, approximately 100 yards long, discharges into Mill Creek. As a result of the spills, the storage tanks were diked and other secondary containment features were added. Sometime during the mid-1980s, when the recirculating filtration system was upgraded, this area was dismantled, and the tanks were moved to the current above-ground storage tank area.[4,6,7]

The chip disposal unit (SWMU no. 11), located in an area roughly 50 feet square, is adjacent to and west of the tube stock and screw machine area beyond a steel dock (see page 2.2, page 2-3). Solid wastes from the machining processes (scrap metal), pushed by harpoons in the steel-lined concrete trenches, are fed by a conveyor belt into a crusher. From the crusher, the metal chips are carried up a second conveyor belt to the roof of the facility, into a chip hopper, which is located on a concrete pad. The chip hopper, located adjacent to the chip disposal unit, hangs off the roof of the facility.[2,3]

Directly south of the tube stock and screw machining area are the warehouse area and the CNC machining area. The former hazardous waste drum storage area (SWMU no. 8) was located against the southwestern corner of the CNC machine area (see figure 2.2, page 2-3).[2,3]

South of the warehouse is the finished goods warehouse. A quality control area and a machine shop are located in the southeastern corner of the the building (see figure 2.2, page 2-3).[2,3,4,8,9]

The current waste drum storage area (SWMU no. 9) is located in the northwestern corner of the component storage area, adjacent to the screw machine area (see figure 2.2, page 2-3). Sealed and labeled waste drums are stored directly on the concrete floor.[2,3]

Adjoining the north-northwestern wall of the tube stock and screw machine area are office space and a storage area (see figure 2.2, page 2-3). Along the northern and western wall of the building facility is additional product storage (approximately 100 by 125 feet) (see figure 2.2, page 2-3).[3,4]

Beneath all the manufacturing processes throughout the facility is a centralized waste drainage system composed of steel-lined concrete trenches. The trenches slope toward a holding pit (SWMU no.10) located beneath the chip disposal area. The holding pit holds approximately 6,000 gallons.[2,3,10]

Four 6,000-gallon underground storage tanks, used to store various oils (SWMU no. 2), were removed from the area when the recirculating filtration system was added to the facility (see figure 2.2, page 2-3). During the February 1988 underground storage tank excavation, soils stained with oil and grease were encountered. The soils were segregated and stockpiled on a double layer of PVC and covered with a single sheet of PVC (SWMU no. 3) in the southern section of the auxiliary parking area (see figure 2.2, page 2-3).[2,3,4,8,10]

Approximately 150 feet west of the 4 former underground storage tanks is the dump truck (SWMU no. 7) containing nonhazardous swarf and filters from the mist fan collection units. The dump truck is stationed over a drainbed located outside the building along the middle of the northern wall (see figure 2.2, page 2-3).[2,3,4,9,10]

Located approximately 15 to 20 feet west of the dump truck is the above-ground storage tank area (SWMU no. 6) (see figure 2.2, page 2-3). Constructed sometime in 1987 or 1988, this area was designed to replace the two former underground storage tank areas (SWMU nos. 2 and 4). Four tanks (one 10,000-gallon, two 6,000-gallon, and one 4,000-gallon) situated on tank cradles are in the tank storage area.[2,3,4] The former above-ground storage tank area (SWMU no. 1) was located adjacent to SWMU no. 2. the tanks were removed sometime during the mid-1980s.[5]

Approximately 10 feet north of the sludge-press and dump truck is the location of the 3 former underground storage tanks (SWMU no. 4) (6,000 gallons, 8,000 gallons, and 10,000 gallons) (see figure 2.2, page 2-3). The tanks, used to store wastewaters containing oils, cutting lubricants, and metal cuttings produced during the manufacturing process, were removed by Mountain Research, Incorporated in November 1990. During the removal process, visible oil staining and a petroleum odor were detected. Soils were segregated and stockpiled on the parking lot (SWMU no. 5) on two double thicknesses of eight-milliliter PVC and covered with a single layer of eight-milliliter PVC (see figure 2.2, page 2-3).[2,3,4,11]

The site is surrounded by fencing along the northern and southern borders. There is also fencing around the above-ground storage tanks. The back doors of the facility have panic doors that lock from inside the building. A 24-hour security guard and a rental police service (for the weekends and holidays) are on duty at the facility.[2,3]

2.3 Ownership History

The property has been owned by SKF Ball Bearings Division since approximately 1951. The United States headquarters of SKF Ball Bearings Division is in King of Prussia, Pennsylvania. SKF, currently the largest ball bearing company in the world, is a Swedish-based company; its corporate headquarters are in Gothenburg, Sweden.[2]

Before 1951, the site was operated as a shirt factory. Information concerning the period of time the site operated as a shirt factory is unavailable. Ownership and use of the site before the shirt factory are unknown.[2]

2.4 Site Use History

The SKF Ball Bearings Division site is a ball bearing manufacturer. In the manufacturing process, machining, heat-treating, grinding, honing, and assembly and packaging operations are performed.[2,4] The majority of the product line is for automotive uses, compressors, blowers, and superchargers. The facility services the entire North American region. There are approximately 325 employees. The facility is in operation 24 hours a day, 6-2/3 days a week. The plant is closed on Sundays from 2:30 pm to 10:30 pm.[2]

Raw material, such as bar stock, tube stock, or forging, is machine turned. Using a continuous belt gas furnace operating at approximately 1,500°F, heat is applied to the metal stock for one to two hours. The stock is quenched in oil, tempered, and washed in water. The next process involves grinding (surface grinding, outside diameter grinding, and groove grinding). The grinding processes do not use cutting oils. A synthetic coolant, mixed with water in a self-contained system, is used.[2]

Following the grinding, honing and filtration are performed. The recirculating filtration system consists of honing machines and filtration units. The honing machines use Honilo 480 castrol oil, which is filtered and recirculated. Two types of filtration units are used at SKF: hydromation and henry filtration systems. Castrol coolants are used in both filtration units. The coolants are recirculated back into the system. Each unit is located on a concrete pad, surrounded by a concrete dike. The hydromation filtration system, which has been used since sometime in 1989, utilizes a flat bed filter with a paper media. The henry filtration unit, which has been used since the 1977, uses a wedge wire screen. Both filtration units filter a nonhazardous residual waste or swarf that is separated by the paper media filter or the wedge wire screen and periodically scraped.[2,3,4]

Located outside the building, along the middle of the northern wall (north of the filtration systems) is a tank, situated on a clay base, with a sludge press (see figure 2.2, page 2-3). Semi-dry swarf from the henry filtration unit is put into the sludge press, where further liquid is removed. The swarf from the hydromation unit is transported directly into the dump truck. The honing machines use a paper filter to remove minute particles of dirt. The dirty filters are periodically changed and stored in the dump truck.[2,3,4]

The next process is ring washing, utilizing cleaning jets in a self-contained washing station. The jets clean the parts as they travel through on a conveyor belt. Two cleaners are used: LOPS and 1,1,1-TCEA. The 1,1,1-TCEA is used as a vapor degreaser. Filters associated with the 1,1,1-TCEA degreasing operation are drummed with the waste 1,1,1-TCEA, taken to the current hazardous waste storage area before shipment to a Safety-Kleen facility, and incinerated. A rust ban is also applied during the ring wash. As part of a quality control measure, the metal parts are placed into 15-gallon metal etch tanks containing dilute hydrochloric acid. The parts are gauged, assembled, and washed before greasing, preserving, and packaging.[2,3,4,10,12]

Wastes generated from the manufacturing process include waste hydraulic oil, water-soluble coolant, cutting oil, machining chips, grinding scrap (metal chips, used grinding wheels, coolant), solvents, and acid.[2,4]

SKF Ball Bearings discharges non-contact coolant water from the air conditioning chilling unit into Mill Run under an NPDES permit.[2,3]

From sometime in 1976 until the mid-1980s, the site held permits for solid waste disposal and incineration of miscellaneous trash, paper, wooden pallets, kerosene-oil mixture, and tramp oil. The incinerator was decommissioned in 1984 and dismantled in 1987.[2,13]

Beneath all the manufacturing processes throughout the facility is a centralized waste drainage system comprising steel-lined trenches. The trenches slope toward a holding pit that holds approximately 6,000 gallons. When there are between 500 to 600 gallons in the pit, the liquid is pumped to an above-ground holding tank.[2,3,10]

2.5 Permit and Regulatory Action History

The SKF Ball Bearings Division filed a Notification of Hazardous Waste Activity Form as a generator and a treatment, storage, or disposal (TSD) facility on August 18, 1980. A Part A Hazardous Waste Permit Application was filed on November 14, 1980. The waste codes listed were F001 (spent halogenated solvents), F010 (quenching bath sludge from oil bath from metal heat-treating operations), F011 (spent cyanide solution from salt bath pot), D001 (ignitable), D002 (corrosive), and D004 (EP toxicity). The process code listed was S02 (tank). On July 27, 1981, SKF Ball Bearings Division obtained interim status. A formal request for the Part B Hazardous Waste Management Facility Permit was issued by PA DER on November 5, 1982. SKF Ball Bearings Division filed a deletion of TSD activity on April 15, 1983. Their status was changed to a hazardous waste generator (not storing hazardous wastes for more than 90 days). The waste code was changed to delete all prior codes, and all wastes generated were listed as D003 (reactive) (see appendix A).[2,14,15,16,17,18]

SKF Ball Bearings Division held Permit No. 300637 from the Bureau of Land Protection and an air emissions permit (temporary operating permit no. 7-301-022) from the Bureau of Air Quality and Noise Control for solid waste disposal and incineration from 1976 until sometime during the mid-1980s. The air emissions permit was for the incineration of miscellaneous trash and paper, wooden pallets, kerosene-oil mixture, and tramp oil. The incinerator included a waste heat boiler capable of producing up to 3,400 pounds of steam per hour. Incinerator emissions consisted of up to 50 ppm carbon monoxide and up to 200 ppm sulfur dioxide. The residual waste was disposed by a contract trash hauler and taken to the Parshall Landfill (I.D. No. 10054). The incinerator was decommissioned in 1984 and removed from the facility in 1987 (see appendix A).[2,13]

SKF Ball Bearings Division is currently authorized to discharge non-contact coolant water from the air conditioning chilling unit into Mill Run under NPDES Permit No. PA0083810. Currently, SKF is not discharging under the permit. Monthly monitoring for pH and temperature is conducted when the chilling unit is in use.[2,19,20]

SKF Ball Bearings Division has a publicly owned treatment works city sewage permit (no. 199013) for boiler blow-down and sewage wastewater from the facility. pH (range 6.0 to 9.0), total petroleum hydrocarbons, suspended solids, and biological oxygen demand are monitored (by grab samples) on a quarterly basis by the city of Altoona.[2,20]

The facility uses a mist fan collection system with a bag-type filter to remove moisture. The filters, which contain dirt and water-soluble coolant, are disposed in the outside bin with the residual nonhazardous swarf. SKF has consulted with Mountain Research Company to monitor for VOCs. No VOCs have been recorded, and SKF does not currently have any stack or air permits.[2]

According to the facility's PPC Plan (1988, revised January 16, 1991), two pollution incidents occurred on or about May 1, 1978 and June 6, 1978. Both events involved spillage of small quantities of waste oil and water-soluble waste coolant into a storm sewer opening during the transfer of the waste from a former above-ground storage tank to a tank truck. The storm sewer discharge from the storm sewer is piped to a drainage ditch, which discharges into Mill Creek. The former above-ground storage tank was located in the vicinity of the current filtration area. SKF was fined for both discharges by the commonwealth of Pennsylvania. By August 1979, corrective measures had been taken to prevent further spills.[4]

On July 13, 1984, a Notice of Violation was issued to SKF Ball Bearings Division for failure to comply with the 90-day storage limit for on-site hazardous wastes and requirements relating to the PPC Plan and emergency procedures (see appendix A). No fines were issued. Corrective measures (removal of all hazardous waste stored over the 90-day limit and implementation of a PPC Plan within 30 days) were required.[21]

In December 1988, SKF Ball Bearings Division was notified in a Letter Agreement, by PA DER, of several paperwork and hazardous waste management violations of the Pennsylvania Solid Waste Management Act (see appendix A). A monetary penalty in the sum of $3,000 was issued.[22]

In October 1987, SKF began excavating the ground adjacent to the northern wall of the facility for construction of an addition to the plant. The area contained four 6,000-gallon-capacity underground storage tanks used to store various oils. Lancy Environmental Services removed the tanks in February 1988. Visual inspection by Lancy Environmental Services did not reveal cracks, holes, or seam failures in the tanks. PA DER was not present during the tank removal. During the excavation, soils stained with oil and grease were encountered. Because the source and extent of contamination were not known, excavation was stopped and a formal assessment plan was developed. The assessment plan was submitted to PA DER and approved in 1988. According to the resulting Lancy report, contamination resulted from overfill or slow leakage over many years.[8]

Four test borings were drilled on March 30 and 31, 1988, and 27 soil samples were collected. In addition, six samples were collected from the existing pit floor. The analysis of the soil samples, test borings, and pit samples identified oil and grease contamination. The highest oil and grease concentrations were found in the 8- to 10-foot sampling intervals (2,700 mg/kg) and in the pit floor samples (14,000 mg/kg). Standing water, encountered at approximately 12 feet, had a slight oil sheen. All other test parameters were either non-detected or were consistent with concentrations found in the background soil samples (see appendix B).[8]

In November 1990, three additional underground storage tanks with wastewaters containing oils, cutting lubricants, and metal cuttings produced during the manufacturing process were removed by Mountain Research, Incorporated because changes in the wastewater-handling system at the site no longer required tanks. PA DER was notified and approved of the tank removal. Removal operations began on November 19, 1990. On November 20, 1990, during the removal process, visible oil staining and a petroleum odor were detected along the fill line. Groundwater, encountered at approximately five feet, contained an oily sheen. Groundwater samples were collected. The aqueous sample contained 77 ppm of dissolved oil and detectable levels of 1,1-dichloroethane and 1,1,1-TCEA. Grab soil samples were collected and analyzed for VOCs, base-neutrals, metals, polychlorinated biphenyls (PCBs), cyanides, and sulfides. There is no information about pit samples. Analytical results for the soil samples are incomplete (see appendix C).[11]

2.6 Remedial Action to Date

Remediation from oil and grease contamination of soils and groundwater during the underground storage tank removal in 1988 involved excavating the soil below the tanks (approximately 20 feet) into the shale layer. The concrete foundation was removed. Soils were segregated and stockpiled on double thicknesses of eight-milliliter PVC and covered with a single layer of eight-milliliter PVC on the southern end of the auxiliary parking area. Composite soil samples were taken of the stockpiled soil on the parking lot. PA DER approved the use of soils containing less than 500 ppm of soil and grease as general backfill. The actual volume of contaminated soil removed from the site is unknown.[2,8]

Remediation of the second set of underground storage tanks (removed in November 1990) involved segregating and stockpiling the excavated soils (based upon where it was excavated) on two double thicknesses of eight-milliliter PVC and covered with a single layer of eight-milliliter PVC. The excavated area was capped with 8 to 10 feet of gravel fill. Soil sampling is ongoing. Mountain Research, Incorporated has recommended a pumping and treatment recovery system to collect leaked product at the site (see appendix C).[2,11]

After removal, the tanks were purged with dry ice or bottled carbon dioxide. The tank walls were washed with a high-pressure washer. All wash waters and residual wastewaters were pumped from the tanks by Wagner, Incorporated, of Duncansville, Pennsylvania, and transported to the Safety-Kleen facility in Buffalo, New York. The cleaned tanks were transported to a scrap yard (see appendix C).[11]

SECTION 3

3.0 ENVIRONMENTAL SETTING

3.1 Water Supply

Residents within the study area rely on public and private supplies, utilizing groundwater and surface water sources for their water supply.

ACWA serves residents of Altoona, Bellwood, Tipton, and Juniata. ACWA is the largest water supplier within the study area. ACWA utilizes 10 surface water sources and a 3-well field for its water supply. None of the surface water sources receives drainage from the site. One surface water source (b) [redacted] is located within the study area. (b) (9) [redacted]. The well field, (b) (9) [redacted], is used for emergency supply only. The three wells have a combined capacity of two million gallons per day (mgd). Each source serves a dedicated area. Each area is integrated through a complex system of transmission lines and valves. ACWA serves approximately 28,000 connections.[1,23]

HMA serves residents of Hollidaysburg and some surrounding areas. HMA utilizes three surface water sources for its water supply. None of the surface water sources receives drainage from the site. One surface water source (b) (9) [redacted] is located within the study area. (b) (9) [redacted]. Water from this 0.3-million-gallon reservoir feeds the northeastern part of the system's distribution area and is always valved off from the rest of the network. HMA supplies water to a total of 8,419 people.[1,24,25]

The Duncansville Borough Water Department (DBWD) serves the town of Duncansville. DBWD utilizes two surface intakes and a well for its water supply. None of the surface sources receives drainage from the site. None of the sources is located within the study area. DBWD serves approximately 2,500 people.[24,26,27,28]

All those not served by public water are assumed to maintain private domestic wells for their water supply. Wells in the study area draw from the Devonian age Catskill Formation to the Silurian age Tuscarora Formation. Limestone and sandstone aquifers are the best producers.[29,30]

3.2 Surface Waters

The nearest surface water is Mill Run, located approximately 0.25 mile west and downgradient of the site. Beaverdam Run flows in a southward direction for approximately 3.25 stream miles to the Beaverdam Branch. The Beaverdam Branch flows in an eastward direction for approximately 3.25 stream miles to the confluence of the Frankstown Branch of the Juniata River. Brush Run, located approximately 1/2 mile east of the site and flowing northwardly, is upgradient of the site.[1]

Beaverdam Run does not have a listed designation under the protected surface water use. The designated use of the Beaverdam Branch is as a warm-water fishery. The Frankstown Branch of the Juniata River is designated as a cold-water fishery.[31]

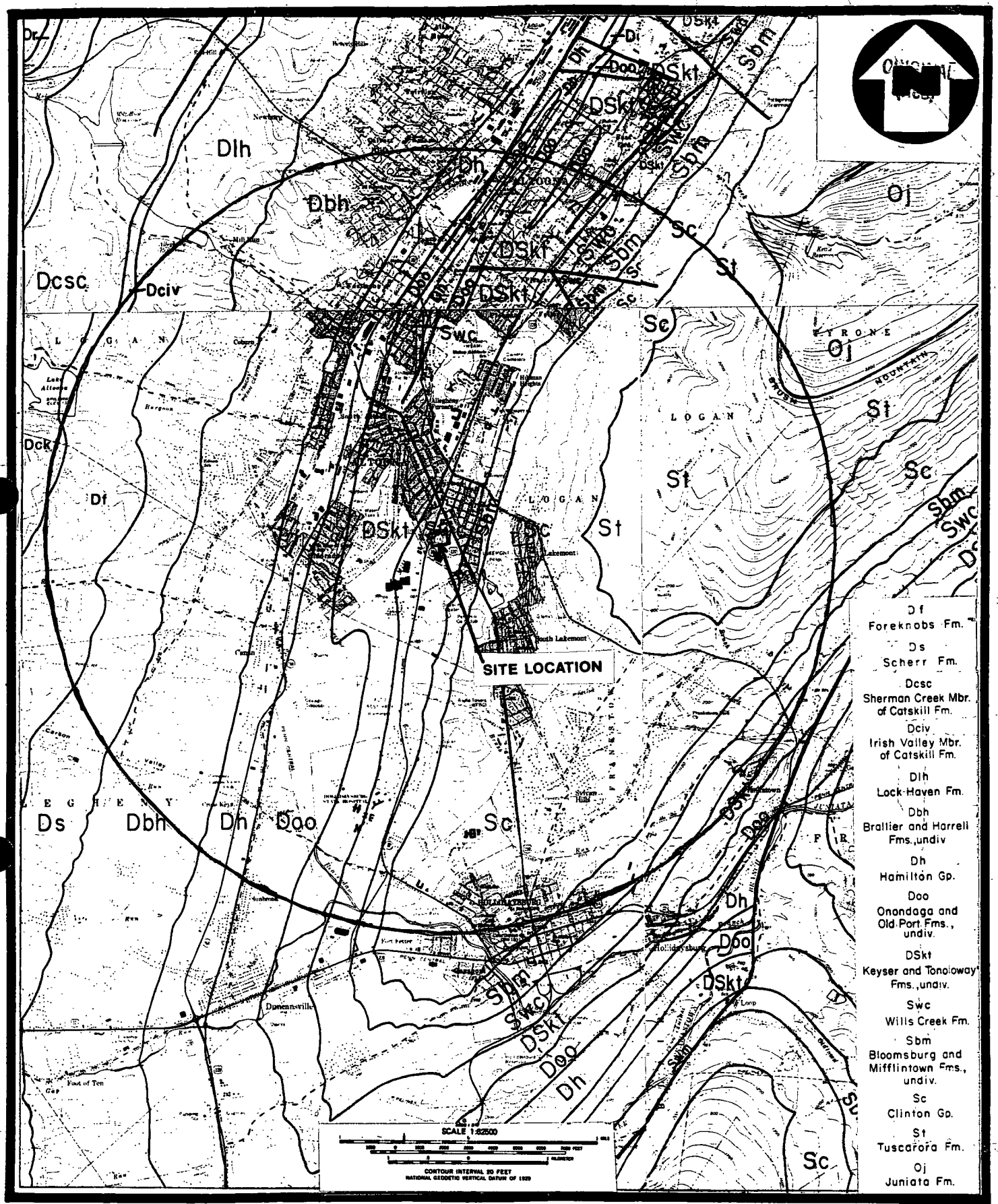
There are no designated wetland areas greater than five acres within a three-mile radius of the site.[32]

3.3 Hydrogeology

The geologic and hydrogeologic conditions in the study area were researched as part of the site investigation. A preliminary literature review was conducted to determine surface and subsurface geologic conditions, soil character, and the status of groundwater transport and storage.

3.3.1 Geology

The SKF Ball Bearings Division site is located within the Appalachian Mountain Section of the Valley and Ridge Province. In this intensely folded province, anticlines and synclines generally trend to the northeast-southwest and produce a succession of narrow, steep-sided ridges and valleys. Rock outcrops typically occur in linear bands parallel to subparallel to the fold axes with resistant, well-cemented sandstones and conglomerates forming the ridges; the valleys are underlain by less resistant limestones and shales. Structurally, the site is located on the northwestern limb of a northeast-southwest-trending faulted anticline (see figure 3.1, page 3-3). Rocks beneath the site dip to the northwest, away from the anticlinal axis. The anticlinal axial trace is located about 1.5 miles southeast of the site and strikes north 30 degrees east. The same rock units are exposed on the southeastern limb of the anticline, but these dip to the southeast. The site is underlain by a thick sequence of Paleozoic age clastic and carbonate sedimentary rocks. The rocks are highly folded and fractured, and karst development in the carbonate rocks has been observed in the area. Streams in the area form a sub-dendritic drainage pattern. Relief in the study area ranges from about 980 to 2,540 feet.[1,29,30,33]



SOURCE: ATLAS OF PRELIMINARY GEOLOGIC QUADRANGLE MAPS OF PENNSYLVANIA

FIGURE 3-1

3-3

GEOLOGIC MAP

SKF BALL-BEARING DIVISION SITE

NUS CORPORATION

The site is directly underlain by the Silurian age Wills Creek Formation. The Wills Creek reportedly consists primarily of interbedded olive and greenish-gray shale and clayey limestone, with a few interbeds of fine-grained sandstone. Joints are well developed and highly abundant. The regional thickness of the Wills Creek ranges from 400 to 650 feet.[29,30,33]

Four on-site boring logs (see appendix D) report the Wills Creek Formation to consist of light gray and light and dark brown claystone and shale.[8]

The Silurian age Bloomsburg and Mifflintown Formations (undivided) underlie the Wills Creek at the site and crop out 0.2 mile east of the site. The Bloomsburg Formation is predominantly a grayish-red shale, with some interbeds of light gray sandstone and limestone. The Mifflintown Formation consists primarily of limestone and calcareous shale. Joints in the Mifflintown are well developed and highly abundant, and joints in the Bloomsburg are poorly formed and highly abundant. Reported thicknesses of the Bloomsburg Formation range from 50 to 450 feet; for the Mifflintown Formation, the thickness is 200 to 625 feet.[29,30,34,35]

The Silurian age Clinton Group underlies the Mifflintown Formation and crops out 0.3 mile east of the site. The Clinton Group consists of light gray to light olive-gray shales, with some minor interbedded siltstone and sandstone. The sandstones are often hematitic. Joints are well developed and highly abundant. Reported thicknesses for the Clinton Group range from 575 to 950 feet.[29,30,34]

The Silurian age Tuscarora Formation underlies the Clinton Group and crops out about one mile east of the site. This formation consists primarily of highly resistant, well-cemented, fine- to coarse-grained sandstones that form prominent ridges throughout the region. Within the study area, this formation forms the crest of Brush Mountain. Joints are moderately well to well developed. The reported thickness for this formation in the area ranges from 400 to 700 feet.[29,30,34]

The Ordovician age Juniata Formation underlies the Tuscarora Formation and crops out about 2.8 miles northeast of the site. This formation consists of primarily of brownish- to grayish-red sandstone, some siltstone, and shale. The sandstone ranges from fine to medium grained and is often crossbedded. Joints are moderately developed and moderately abundant. The reported thicknesses for this formation in the area range from 850 to 1,700 feet.[29,30,34]

The Devonian - Silurian age Keyser and Tonoloway Formations (undivided) overlie the Wills Creek Formation and crop out about 0.1 mile west of the site. The Keyser and Tonoloway Formations are thin- to thick-bedded, laminated limestones and shaly limestones with some interbedded shale. Joints in the two formations are moderately developed and moderately to highly abundant. Jointing in the Keyser Formation has been observed approximately 3.8 miles south of the site. There, the Keyser had 2 well-developed fracture sets, striking north 70 degrees west and north 30 degrees east. The joints were spaced at three feet and showed considerable evidence of solution channeling. In addition, numerous sinkholes had formed along the contact of the Keyser and Tonoloway Formations. Reported regional thicknesses for these formations (considered together) range from 530 to 1,020 feet.[29,30,34,35]

The Devonian age Onondaga and Old Port Formations (undivided) overlie the Keyser Formation and crop out about 0.7 mile west of the site. The Onondaga and Old Port Formations consist primarily of interbedded dark gray limestones, shaly limestones, and calcareous to non-calcareous shales; the Old Port Formation contains a calcareous quartz sandstone (the Ridgely Member). Joints in the Onondaga are fairly well developed and moderately abundant. Joints in the Old Port are well developed and highly abundant. Reported regional thicknesses for these formations (considered together) range from 50 to 175 feet.[28,30,33]

The Devonian age Hamilton Group overlies the Onondaga Formation and crops out about 0.8 mile west of the site. The Hamilton Group consists of the Marcellus Formation and the overlying Mahantango Formation. The Mahantango consists of olive-gray fossiliferous siltstones and shales interbedded with light to dark gray, fine- to coarse-grained sandstones. The Marcellus Formation is a thin-bedded, very dark gray to black, fissile shale. Joints in the Hamilton Group are well developed, mostly open, closely spaced, and steeply dipping. The regional thickness of the Hamilton Group ranges from 1,300 to 2,030 feet.[29,30,34]

The Devonian age Brallier and Harrel Formations (undivided) overlie the Hamilton Group and crop out one mile west of the site. The Brallier and Harrel Formations are predominantly black and gray shale units, with some interbedded silty shales and siltstones in the younger Brallier Formation. Joints in these formations are highly developed, closely spaced, and somewhat irregular. The maximum regional thickness of these formations (considered together) is approximately 3,000 feet.[29,30,34]

ORIGINAL
(Red)

The Devonian age Scherr Formation overlies the Brallier Formation and crops out approximately 1.8 miles west of the site. The Scherr Formation is composed primarily of the olive-gray to greenish-gray, thin- to thick-bedded siltstone and sandstone and brownish-gray to medium gray mudstone and shale. Joints are well developed and closely spaced. The maximum thickness of this unit is 1,900 feet.[29,30,34]

The Devonian age Foreknobs Formation overlies the Scherr Formation and crops out approximately 2.2 miles west of the site. The Foreknobs Formation is composed of gray conglomerate, sandstone, siltstone, mudstone, and shale. This formation is thin to very thick bedded in layers ranging from 0.5 inch to 10 feet. Joints are well developed and moderately abundant to abundant. The Foreknobs is between 1,500 and 1,600 feet thick regionally.[29,30,34]

The stratigraphic section mapped as the Foreknobs and Scherr Formations in the Holidaysburg quadrangle is mapped as the Lock Haven Formation in the Altoona quadrangle. The Lock Haven Formation is described as predominantly siltstone and argillaceous siltstone (60 percent), sandstone (20 percent), shale (15 percent), and conglomerate (less than 5 percent). The formation is fine grained in the lower part, coarse grained in the middle part, and fine grained in the upper part. Conglomerate forms the top of the formation. Joints are poorly to well developed and have moderate to wide spacing. The Lock Haven is reported to be between 1,900 and 2,000 feet thick regionally.[29,30,34]

The Devonian age Irish Valley Member of the Catskill Formation overlies the Lock Haven Formation and crops out about 2.9 miles northwest of the site. This unit is composed of alternating beds of olive-gray sandstone, siltstone, and shale, with red siltstone, mudstone, and shale. Joints are well developed and highly abundant. The maximum thickness of this unit is reported to be 250 feet.[29,30,34]

An area mapped as Devonian age Catskill Formation is located approximately 2.9 miles west-northwest of the site. This unit is believed to be the Sherman Creek Member of the Catskill Formation.[29]

The Sherman Creek Member overlies the Irish Valley Member. This unit is composed of interbedded grayish-red silty mudstone, sandy siltstone, and reddish-gray to light olive-gray, very fine- to medium-grained, silty, micaceous sandstone. Joints are reported to be well developed and highly abundant. Statewide, the thickness of this unit is reported to be 1,200 feet.[30,34]

3.3.2 Soils

The site is mapped as underlain by Urban land. Disturbed or altered soils and man-made features such as roads, parking lots, buildings, or other structures cover 85 percent or more of this land type. The physical properties of Urban land are extremely variable and cannot be estimated.[35]

Four borings were drilled by Lancy Environmental Services on March 31, 1988. A location map and boring logs are available in appendix D. All four borings were drilled through the soils to refusal in bedrock. Soil analysis of split-spoon samples taken from the borings is available in appendix E. Boring logs and soil sample analysis describe encountered soils as dark to light brown, unstratified, fine to medium gravel (15 to 45 percent), fine to very coarse sand (5 to 70 percent), and fines (silt and clay) (5 to 100 percent). Soils are loose to dense and soft to hard. The depth to bedrock beneath the site is reported to be 8 to 13 feet.[8]

Six soil samples were taken from the excavated storage tank area. Five soil analyses are available for sample points 2 through 6. These descriptions are available in appendix F. The reported soils are similar to those found in the soil borings at similar depths below the original land surface.[8]

Soil disturbance on site is reported to be extensive. Soil filling, grading, and excavation and disturbance associated with various construction activities have occurred on site.[8]

3.3.3 Groundwater

Groundwater storage beneath the site occurs in the primary and secondary porosity of the sedimentary rocks of the Wills Creek Formation. Movement is through the fracture-induced secondary porosity. Fracturing is present in all the stratigraphic units and provides most of the porosity and permeability present in the units. Because these fractures transcend formational or lithologic boundaries, all the units in the study area are considered to be regionally hydraulically interconnected. Recharge of groundwater in the area occurs through the infiltration of precipitation through the soil and into the fractured bedrock of the host unit and takes place primarily in the topographic highs. Discharge of groundwater occurs into wells or into wetlands or base flow of streams in topographic lows.[29,30,34]

The Wills Creek Formation yields sufficient groundwater for small to moderate supplies. Jointing provides a low secondary porosity and a low permeability. Regionally, yields for 199 wells range between 1 and 360 gallons per minute (gpm), with a median yield of 15 gpm for domestic wells and 40 gpm for non-domestic wells. Median depths for domestic and non-domestic wells are 100 and 137 feet, respectively. Generally, for this formation, the water-bearing zones are most common at depths shallower than 100 feet, and water quality decreases with depth. The water is very hard and moderately high in dissolved solids.[30,34]

The depth to groundwater beneath the site is reported by Mountain Research, Incorporated to be five to six feet below original land surface in the vicinity of the removed tanks.[11]

Shallow groundwater flow is expected to be westwardly, toward Mill Run. Actual groundwater flow direction is not known but is based on the role of streams as discharge points for groundwater and the assumption that the water-table configuration is similar to surface topography but with less relief.[1]

No wetlands greater than five acres in size are located within the four-mile radius.[32]

3.4 Climate and Meteorology

Based on local climatological data for Harrisburg, Pennsylvania, located 83 miles east of the site, the average daily maximum temperature of the area is 62.5°F. The average daily minimum temperature of the area is 43.5°F. The warmest month is July with an average temperature of 86.2°F, and the coldest month is January with an average temperature of 36.7°F. The average annual precipitation is 39.09 inches. The greatest precipitation is in May, with an average of 3.67 inches, and the lowest precipitation is in February and October, with an average of 2.73 inches. The mean annual lake evaporation for this area is 30 inches, resulting in a net precipitation of approximately 9.09 inches. A 1-year, 24-hour rainfall is expected to produce 2.25 inches.[36,37,38]

3.5 Land Use

Land use within four miles of the site consists of light industry, commercial, residential, and undeveloped use. Located within a one-mile radius of the site is the city of Altoona. Within the immediate vicinity of the site is commercial land use. Beyond a one-mile radius, land use is predominantly undeveloped, with areas of residential use.[1,3]

ORIGINAL
(Red)

3.6 Population Distribution

A routine house count was made for the one-, two-, and three-mile radii surrounding the site. Also taken into account were the known populations of the surrounding communities. The calculated population based on 3.8 persons per household is as follows:[1]

0 to 1 mile:	6,708 people
1 to 2 miles:	12,215 people
2 to 3 miles:	15,693 people
3 to 4 miles:	7,269 people

The total calculated population within 3 miles of the site is 41,885.[1]

3.7 Critical Environments

Two federally listed endangered birds are expected to be found as transient species in the project area. They are the bald eagle (Haliaeetus leucocephalus) and the peregrine falcon (Falco peregrinus). There is no listed critical habitat for these species in the project area.[39]

SECTION 4

4.0 WASTE TYPES AND QUANTITIES

The SKF Ball Bearings Division filed a Notification of Hazardous Waste Activity Form as a generator and a TSD facility on August 18, 1980. A Part A Hazardous Waste Permit Application was filed on November 14, 1980. The waste codes listed by the site were F001 (spent halogenated solvents), F010 (quenching bath sludge from oil bath from metal heat-treating operations), F011 (spent cyanide solution from salt bath pot), D001 (ignitable), D002 (corrosive), and D004 (EP toxicity). According to the Part A Hazardous Waste Permit Application, the estimated annual quantity of waste was 1,725.1 tons. The process code listed was S02 (tank). On July 27, 1981, SKF Ball Bearings Division obtained interim status. A formal request for Part B of the Hazardous Waste Management Facility Permit was issued by PA DER on November 5, 1982. SKF Ball Bearings Division filed a deletion of TSD activity on April 15, 1983. The facility's status was changed to a hazardous waste generator (not storing hazardous wastes for more than 90 days). The waste code was changed to delete all prior codes, and all wastes generated were listed as D003 (reactive) (see appendix A).[2,14,15,16,17,18]

SKF Ball Bearings Division currently generates and temporarily stores hazardous wastes under EPA ID No. PAD004344172. Currently, the facility generates two types of spent solvents: 1,1,1-TCEA and LOPS. Safety-Kleen (EPA I.D. No. ILD051060408) transports and reclaims 1,1,1-TCEA. Filters associated with the 1,1,1-TCEA degreasing operation are drummed with the waste 1,1,1-TCEA, taken to Safety-Kleen, and incinerated. The spent LOPS is stored in an above-ground wastewater storage tank. Small quantities (approximately 12 gallons per year) of dilute hydrochloric acid, produced in quality control processes, are transferred to the above-ground wastewater storage tank. The majority of oils and water-soluble coolants used in the manufacturing processes are recirculated. Liquid wastes that are not recirculated are drained into a centralized containment pit and periodically transferred to the above-ground wastewater storage tank. The wastewater is also transported by Safety-Kleen.[2,10,12,14]

Before 1988, heat-treated waste salts (D001 oxidizer) used in metal heat-treatment processes were generated by SKF Ball Bearings Division. According to a uniform hazardous waste manifest dated March 4, 1987, 20.0 tons of D001 oxidizer were transported by CECOS (EPA I.D. No. OHD0874433744), of Williamsburg, Ohio (see appendix G).[2,40]

Based on information obtained from the most recent Uniform Hazardous Waste Manifest, filed on November 16, 1990, four drums of waste 1,1,1-TCEA (F001) were shipped to Safety-Kleen (EPA I.D. No. ILD051060408) (see appendix G).[41]

Approximately 435 cubic yards of oil-contaminated soil, excavated during the 1988 underground storage tank removal, were transported by Wayne Disposal (EPA I.D. No. MID048090633). Approximately 500 cubic yards of lightly contaminated soils (greater than 500 ppm of oil and grease) were taken to Community Refuse Limited, in Greencastle, Pennsylvania (see appendix G).[42,43]

4.1 Solid Waste Management Units

Fourteen SWMUs have been identified for the site: the former above-ground storage tank area, the former underground storage tank area (1988), the area of stockpiled soil from 1988, the former underground storage tank area (1990), the area of stockpiled soil from 1990, the current above-ground storage tank area, the dump truck storing nonhazardous swarf and filters, the former hazardous waste drum storage area, the current hazardous waste drum storage area, the wastewater holding pit, the chip hopper, the containment tank for quench oil, the former incinerator, and the mist fan collection system. Two SWMUs are hazardous waste areas: the former hazardous waste drum storage area and the current hazardous waste drum storage area. The former hazardous waste drum storage area, located inside the facility against the southwestern corner of the CNC machining area, held drums stored on the concrete floor. There was no secondary containment. Currently, nothing is stored in this area. The current hazardous waste drum storage area is located inside the facility along the northwestern wall of the component store area. Sealed and labeled waste drums are stored on the concrete floor, and there is no secondary containment.[2,3]

4.1.1 SWMU No. 1

Former Above-Ground Storage Tank Area

The former above-ground storage tank area was located in the vicinity of the recirculating filtration systems (henry and hydromation units). The area consisted of 2 tanks: a 10,000-gallon wastewater tank and a 4,000-gallon waste oil tank. According to the facility's most recent PPC Plan, two pollution incidents occurred in 1978. Both involved spillage of small quantities of wastewater and waste oil into a storm sewer during transfer of the waste liquids from the tanks to a truck. SKF was fined for both discharges by the commonwealth of Pennsylvania. As a result of these incidents, the tanks were diked and other secondary containment measures were taken.[4]

Date of Start-Up

The start-up date is unknown.[6]

Date of Closure

Available information indicates that this area operated until sometime during the mid-1980s.[6]

Wastes Managed

Two tanks (a 10,000-gallon wastewater tank and a 4,000-gallon waste oil tank) were managed.[6]

Release Controls

Before the two pollution incidents in 1978, there were no release controls. As a result of these incidents, the storage tanks were diked, and curbing along truck pads and the trench at the end of the driveway to direct the flow of spill were added.[4]

History of Releases

On or about May 1, 1978, approximately five gallons of waste oil were discharged into a storm sewer opening during the transfer of waste material from the storage tank to a tank truck. This incident resulted in a $150.00 fine by the commonwealth of Pennsylvania.[4]

On or about June 6, 1978, while transferring wastewater from the storage tank to a tank truck for transport, approximately 10 gallons of waste liquid were discharged into a storm sewer opening. Discharge from the storm sewer is piped into a drainage ditch located along Plank Road, between the K-Mart Plaza and Morningside Plaza. The drainage ditch, approximately 100 yards long, discharges into Mill Creek. This incident resulted in a $250.00 fine by the commonwealth of Pennsylvania.[4]

4.1.2 SWMU No. 2

Former Underground Storage Tank Area (1988)

The former underground storage tank area was located along the northeastern corner of the building. In October 1987, SKF began excavating the ground adjacent to the northern wall of the facility in order to construct an addition to the plant. The excavated area contained four 6,000-gallon-capacity underground storage tanks used to store various oils. Lancy Environmental Services removed the tanks in February 1988. During the excavation, soils stained with oil and grease were encountered. Approximately 500 tons of soil were transported to Wayne Disposal (Detroit, Michigan, EPA I.D. No. MID048090633), a secure waste disposal facility. Because the source and extent of contamination were not known, excavation was stopped and a formal assessment plan was developed. The assessment plan was submitted to PA DER and approved in 1988. Four test borings were drilled on March 30 and 31, 1988, and 27 soil samples collected. In addition, six samples were collected from the existing pit floor. Data obtained from soil analysis collected from the soil samples, test borings, and pit samples identified oil and grease contamination. The highest concentrations of oil and grease were found in the pit floor samples (14,000 mg/kg). Remediation involved excavating the soil below the tanks into the shale layer. The concrete foundation was removed. Soils were segregated and stockpiled on a double layer of eight-milliliter PVC plastic and covered with a single sheet of plastic. Composite soil samples were taken of the stockpiled soil on the parking lot. PA DER approved the use of soils containing less than 500 ppm of soil and grease as general backfill.[2,3,8,41]

Date of Start-Up

Available information indicates that the tanks were installed in the early 1960s.[2]

Date of Closure

The four underground storage tanks were removed in February 1988.[2,8]

Wastes Managed

The four 6,000-gallon underground storage tanks were used to store various oils used in routine plant processes.[2,8]

Release Controls

No release controls were described or observed for this area.[2,3]

History of Releases

During the excavation, soils stained with oil and grease were encountered. Analysis of the soil samples, test borings, and pit samples identified oil and grease contamination. The highest concentrations of oil and grease were found in the pit floor samples (14,000 mg/kg).[8]

4.1.3 SWMU No. 3
Area of Stockpiled Soil from 1988

Lancy Environmental Services removed four underground storage tanks in February 1988. During the excavation, soils stained with oil and grease were encountered. Soils were segregated and stockpiled on the southern end of the auxiliary parking area on double layer of eight-milliliter PVC plastic and covered with a single sheet of plastic. Composite soil samples were taken of the stockpiled soil on the parking lot. PA DER approved the use of soils containing less than 500 ppm of soil and grease as general backfill.[2,3,8,41]

Date of Start-Up

Available information indicates that the soils were stockpiled in mid-February 1988.[6]

Date of Closure

Available information indicates that the last parcel of soil was removed in mid-July 1988.[6]

Wastes Managed

Soils, contaminated with low (less than 50 ppm) to high concentrations (14,000 mg/kg) of oil and grease, were managed.[8]

Release Controls

The contaminated soils were segregated and stockpiled on a double thickness of eight-milliliter PVC plastic and covered with a single layer of plastic.[6]

History of Releases

No releases have been reported or observed from this area.[2]

4.1.4 SWMU No. 4

Former Underground Storage Tank Area (1990)

Because of changes in the wastewater-handling system at the site, in November 1990, three underground storage tanks with wastewaters containing oils, cutting lubricants, and metal cuttings produced during the manufacturing process were removed by Mountain Research, Incorporated. PA DER was notified and approved of the tank removal. Removal operations began on November 19, 1990. On November 20, 1990, during the removal process, visible oil staining and a petroleum odor were detected along the fill line. Groundwater, encountered at approximately five feet, contained an oily sheen. Groundwater samples were collected. The aqueous sample contained 77 ppm of dissolved oil and detectable levels of 1,1-dichloroethane and 1,1,1-TCEA. Soils were segregated and stockpiled, in the parking area, on two double thicknesses of eight-milliliter PVC and covered with a single layer of eight-milliliter PVC. Grab soil samples were collected and analyzed for VOCs, base-neutrals, metals, PCBs, cyanides, and sulfides. Analytical results for the soil samples are incomplete (see appendix C).[2,3,11]

Date of Start-Up

Information regarding the start-up date is unavailable.

Date of Closure

Removal operations began on November 19, 1990.[11]

Wastes Managed

The three underground storage tanks contained wastewaters with oils, cutting lubricants, and metal cuttings produced during the manufacturing process.[11]

Release Controls

No release controls were described or observed for this area.[2,3]

History of Releases

On November 20, 1990, during the underground tank removal process, visible oil staining and a petroleum odor were detected along the fill line. Groundwater, encountered at approximately five feet, contained an oily sheen. Groundwater samples were collected. The aqueous sample contained 77 ppm of dissolved oil and detectable levels of 1,1-dichloroethane and 1,1,1-TCEA. Grab soil samples were collected and analyzed for VOCs, base-neutrals, metals, PCBs, cyanides, and sulfides. Analytical results for the soil samples are incomplete (see appendix C).[2,3,11]

4.1.5 SWMU No. 5
Area of Stockpiled Soil from 1990

During the underground storage tank removal process in late 1990, oil staining was observed. Soils were segregated and stockpiled in the western end of the auxiliary parking area on two sheets of eight-milliliter PVC plastic and covered with a single layer of eight-milliliter PVC. Grab soil samples were collected and analyzed for VOCs, base-neutrals, metals, PCBs, cyanides, and sulfides. Analytical results for the soil samples are incomplete (see appendix D).[2,3,11]

Date of Start-Up

Available information indicates that the soils were stockpiled after the underground tank removal process in November 1990.[2]

Date of Closure

The stockpiled soils are currently located in the parking area.[2,3]

Wastes Managed

Wastes stored in this area are soils contaminated with various concentrations of oil and grease. Analytical results for the soil samples are incomplete.[2,11]

Release Controls

The contaminated soils are stored on two double thicknesses of eight-milliliter PVC and covered with a single layer of eight-milliliter PVC.[2,3]

History of Releases

No evidence or record of releases have been documented or observed from this area.[2,3]

4.1.6 SWMU No. 6
Current Above-Ground Storage Tank Area

The current above-ground storage tank area (approximately 25 by 25 feet in size) is located roughly 15 to 20 feet west of the dump truck. Constructed around 1987, this area was designed to replace the two former underground storage tank areas. Four tanks (one 10,000 gallons, two 6,000 gallons, and one 4,000 gallons) are situated on tank cradles in this area. The 10,000-gallon tank contains wastewater, including spent lower-order paraffins, the two 6,000-gallon tanks contain raw product, and the 4,000-gallon tank contains oil skimmed off the water wash. The floor is concrete, and a cinderblock dike surrounds the area. Containment has been designed to match the quantity of material in all the tanks.[2,3]

Date of Start-Up

Available information indicates that this area has been active since sometime in late 1987 or early 1988.[2]

Date of Closure

This area is currently active.[2,3]

Wastes Managed

The 10,000-gallon tank contains wastewater, the two 6,000-gallon tanks contain raw product, and the 4,000-gallon tank contains oil skimmed off the water wash. Diluted acid, used for quality control purposes, is stored with the wastewater tank. The contents of the wastewater tank and skimmed oil tank are transported by Safety-Kleen.[2]

Release Controls

The floor is concrete, and a cinderblock dike surrounds the area. Containment has been designed to match the quantity of material in all the tanks.[2,3]

History of Releases

There is no evidence or record of releases from this area.[2,3]

4.1.7 SWMU No. 7
Dump Truck Storing Nonhazardous Swarf and Filters

The dump truck is located outside along the middle of the northern wall of the building. It is stationed over a drainbed that leads to the centralized liquid waste system. The drainbed is surrounded by a concrete berm. Nonhazardous swarf and filters are stored in the dump truck. Once a month, when the truck is approximately one-half full, the nonhazardous swarf and filters are transported from the facility by Stoudt Environmental - Waste Conversions, Incorporated (PAD085690592) and taken to a landfill in Ohio.[2,3,4,10,11]

Date of Start-Up

Available information indicates that this area has been active since sometime in late 1970s.[2]

Date of Closure

This area is currently in operation.[2,3]

Wastes Managed

Nonhazardous swarf and filters are stored in the dump truck.[2,3]

Release Controls

The dump truck is stationed over a drainbed. The drainbed is connected to the centralized waste system. The wastes managed are nonhazardous.[2,3]

History of Releases

No evidence or record of releases has been found or observed for the area.[2,3]

4.1.8 SWMU No. 8

Former Hazardous Waste Drum Storage Area

The former hazardous waste drum storage area was located against the northwestern corner of the CNC machining area. The drums were stored on the concrete floor. There was no secondary containment. Currently, nothing is stored in this area.[2,3]

Date of Start-Up

Information is unavailable on the exact date of start-up. It is believed that this area was in operation when the facility filed its Notification of Hazardous Waste Activity in August 1980.[2]

Date of Closure

Available information indicates that this area was closed sometime in 1988.[2]

Wastes Managed

Heat-treated salt wastes (oxidizer) used in the heating process are stored in sealed 55-gallon drums and accumulated in this area.[2]

Release Controls

No release controls were described or observed for this area.[2,3]

History of Releases

No releases have been observed or documented for this area.[2,3]

4.1.9 SWMU No. 9
Current Hazardous Waste Drum Storage Area

The current waste drum storage area is located along the northwestern wall of the component store area. Sealed and labeled waste drums are stored directly on the concrete floor. There is no secondary containment.[2,3]

Date of Start-Up

Available information indicates that this area was active in 1986.[2]

Date of Closure

This area is currently in operation.[2,3]

Wastes Managed

Spent 1,1,1-TCEA that is stored in sealed and labeled 55-gallon containers is managed in this area.[2,3]

Release Controls

No release controls were described or observed for this area.[2,3]

History of Releases

No releases have been documented or observed for this area.[2,3]

4.1.10 SWMU No. 10
Wastewater Holding Pit

A centralized waste drainage system is in place along the aisle, beneath the manufacturing processes throughout the facility. The trenches slope toward a holding pit located beneath the chip disposal area. The holding pit capacity is approximately 6,000 gallons. When there are about 500 to 600 gallons of liquid waste, the waste is pumped to the wastewater above-ground storage tank.[2,3,10,12]

Date of Start-Up

Available information indicates that this area was in operation from sometime in 1988.[2]

Date of Closure

This area is currently in operation.[2,3]

Wastes Managed

Liquid wastes consisting primarily of a water-soluble synthetic coolant and some waste oil are managed in this area.[2,3]

Release Controls

The pit is constructed of concrete and is located under the floor, beneath the chip disposal area. The holding pit capacity is approximately 6,000 gallons. When there are about 500 to 600 gallons of liquid waste, the waste is pumped to the wastewater above ground storage tank.[2,3,10,12]

History of Releases

There have been no records or evidence of releases from this area.[2,3]

ORIGINAL (Red)

4.1.11 SWMU No. 11
Chip Hopper

The chip hopper is located adjacent to the chip disposal unit, inside an enclosed structural steel building. The floor is concrete, and the walls are poured concrete. The dimensions are roughly 11 by 11 by 4 feet. The base is cone shaped. Metal wastes, fed by a conveyor belt and into a crusher, are stored in this area. Approximately once a week, Hodes removes the scrap chip.[2,3]

Date of Start-Up

Available information indicates that this area was active from approximately 1960.[2,6]

Date of Closure

This area is currently active.[2,3]

Wastes Managed

Metal chip wastes, consisting of butt ends, steel bandings, and excess scrap, are managed in this unit.[2,3]

Release Controls

The chip hopper is constructed of steel plating. The floor and walls are constructed of concrete. The scrap chip is removed approximately once a week by Hodes.[2,6]

History of Releases

There is no record or evidence of releases from this area.[2,3]

4.1.12 SWMU No. 12
Containment Tank for Quench Oil

The quench oil tank, in a secondary containment pit, is located in the heat treatment area. The quench oil is removed every 18 to 24 months and hauled by Safety-Kleen in a tank truck. The nonhazardous carbon sludge, along with the tank filter, is stored in the dump truck.[2,9,12]

Date of Start-Up

Available information indicates that this area has been active since sometime in 1979.[2,6]

Date of Closure

This area is currently active.[2,3]

Wastes Managed

Quench oil and nonhazardous carbon waste are managed in this unit.[2,9,12]

Release Controls

The quench oil tank is in a secondary containment pit.[2,3]

History of Releases

There have been no records or direct evidence of releases from this area.[2,3]

4.1.13 SWMU No. 13
Former Incinerator

The former incinerator was located adjacent to the filtration system, in the air conditioning and ventilation area. The system included a waste heat boiler capable of producing up to 3,400 pounds of steam per hour. SKF Ball Bearings held a permit for solid waste disposal and incineration of miscellaneous trash and paper, wooden pallets, kerosene-oil mixture, and tramp oil. Residual waste was disposed by a contract trash hauler and taken to the Parshall Landfill. The incinerator was decommissioned in 1984 and removed from the facility in 1987.[2,6,10,12,13]

Date of Start-Up

Available information indicates that the start-up date of the incinerator was 1976.[13]

Date of Closure

Available information indicates that the incinerator was decommissioned in 1984 and removed from the facility in 1987.[2,6,10,12]

Wastes Managed

Wastes managed included miscellaneous trash and paper, wooden pallets, kerosene-oil mixture, and tramp oil. The residual waste was disposed by a contract trash hauler and taken to the Parshall Landfill.[2,13]

Release Controls

Available information indicates that there were no release controls.[2,13]

History of Releases

Based on available information, there have been no releases from this unit.[2,13]

4.1.14 SWMU No. 14
Mist Fan Collection System

The facility uses a mist fan collection system with a bag-type filter to remove moisture. Located in the grinding area, the filtration units contain dirt and water-soluble coolant collected from manufacturing processes. SKF has consulted with Mountain Research Company to monitor for VOCs. No VOCs have been recorded, and SKF does not currently have any stack or air permits. The filters are disposed in the outside dump truck with the nonhazardous swarf. The dump truck is emptied every month by Stoudt Environmental.[2]

Date of Start-Up

Available information indicates that the start-up date of the mist fan collection system was 1988. [5]

Date of Closure

The mist fan collection system is currently in operation.[2,3]

Wastes Managed

The filtration units contain dirt and water-soluble coolant collected from manufacturing processes.[2,3]

Release Controls

The filters in the mist fan collection system screen out dirt and water-soluble coolant collected from manufacturing processes.[2,3]

History of Releases

There are no records or evidence of any releases from this unit.[2,3]

ORIGINAL
(Red)

SECTION 5

ORIGINAL (Red)

5.0 FIELD TRIP REPORT

5.1 Summary

On January 23, 1991, NUS FIT 3 representatives Shari Harris-Dunning and Steven Sottung visited the SKF Ball Bearings Division site in Altoona, Blair County, Pennsylvania. Gerald Halbedl, waste coordinator, granted site access. Mr. Halbedl, Gary Pallas, human resources manager, and Dilip Pandya, plant engineer, accompanied the team during the site visit. Weather conditions were very cold and slightly windy, with temperatures around 8°F. Due to camera malfunction, photographs were not taken on site.

5.2 Persons Contacted

5.2.1 Prior to Field Trip

Gerald Halbedl
Waste Coordinator
SKF Ball Bearings Division
1000 Logan Boulevard
Altoona, PA 16602-4096
(814) 949-7723

Donna Santiago
U.S. EPA
841 Chestnut Building
Ninth and Chestnut Streets
Philadelphia, PA 19107
(215) 597-1105

Michael Union
PADER
Bureau of Solid Waste Management
615 Howard Street
Altoona, PA 16601
(814) 946-7292

5.2.2 At the Site

Gerald Halbedl
Waste Coordinator
SKF Ball Bearings Division
1000 Logan Boulevard
Altoona, PA 16602-4096
(814) 949-7723

Gary Pallas
Human Resources Manager
SKF Ball Bearings Division
1000 Logan Boulevard
Altoona, PA 16602-4096
(814) 949-7709

Dilip Pandya
Plant Engineer
SKF Ball Bearings Division
1000 Logan Boulevard
Altoona, PA 16602-4096
(814) 949-7712

5.2.3 Water Supply Well Information

No home wells were identified within a one-mile radius of the site.

ORIGINAL (Red)

5.3 Site Observations

- The mini-alert was set on the X1 position; no readings above background were recorded.
- The OVM background reading was 0.6 ppm. A reading of 7 ppm was recorded near the chip disposal area. A loading truck, with its engine running, was close to the area.
- The site was partially fenced. An area of fencing separated SKF property from Penelec.
- A large mound of soil situated on a double layer of eight-milliliter PVC plastic and covered with a single layer of eight-milliliter PVC plastic was located in approximately the middle of the parking lot.
- The locations of the three former underground storage tanks have been filled with gravel and soil.
- The location of the four former underground storage tanks is now occupied by an addition of the facility.
- The tanks in the current above-ground storage tank facility were in tank cradles. A cinderblock dike surrounded the tank form. The tank form was located outside the building facility.
- The sludge press and tank were located on a clay fill.
- The dump truck storing the nonhazardous swarf was located over an open drain leading into the centralized liquid waste system.
- The former heat treated salt bath waste area was empty. The signs had been removed.
- The current hazardous waste drum storage area held two 55-gallon drums of 1,1,1-TCEA. The drums were located on the concrete floor. There was no secondary containment.
- The hydromation and henry filters were situated on a concrete pad and surrounded by a concrete dike.

ORIGINAL
(Red)

- All the clean and dirty tanks located in the pit in the basement had secondary containment.
- All the machining processes were surrounded by a concrete dike or a containment pan.
- The concrete trenches, part of the centralized waste drainage system, ran throughout the manufacturing portion of the facility.

ORIGINAL (Red)

F3-9012-17

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION
01 STATE: PA | 02 SITE NUMBER: 2825

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO. OR SPECIFIC LOCATION IDENTIFIER				
SKF Ball Bearing	1000 Logan Boulevard				
03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Altoona	PA	16602	Blair	013	09
09 COORDINATES LATITUDE: 40° 28' 40"	LONGITUDE: 78° 24' 30"				

10 DIRECTIONS TO SITE (Starting from nearest public road)
Entrance to site is directly off Logan Boulevard (old Route 220).

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, mailing, residential)		
SKF Industries	1100 First Avenue		
03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
King of Prussia	PA	19406	(215) 265-1900
07 OPERATOR (If known and different from owner)	08 STREET (Business, mailing, residential)		
Gerald Halbedl	1000 Logan Boulevard		
09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER
Altoona	PA	16602	(215) 949-7723

13 TYPE OF OWNERSHIP (Check one)
☒ A. PRIVATE ☐ B. FEDERAL _____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL
☐ F. OTHER: _____ (Specify) ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)
☒ A. RCRA 3001 DATE RECEIVED: 11 / 14 / 80 (MONTH DAY YEAR) ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: ___ / ___ / ___ (MONTH DAY YEAR) ☐ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION
☒ YES ☐ NO DATE 01 / 23 / 91 (MONTH DAY YEAR)
BY (Check all that apply)
☐ A. EPA ☒ B. EPA CONTRACTOR ☐ C. STATE ☐ D. OTHER CONTRACTOR
☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ (Specify)
CONTRACTOR NAME(S): NUS Corporation

02 SITE STATUS (Check one)
☒ A. ACTIVE ☐ B. INACTIVE ☐ C. UNKNOWN

03 YEARS OF OPERATION
approximately 1951 (BEGINNING YEAR) | present (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
1,1,1-Trichloroethane, water-soluble coolant, waste hydraulic oil, cutting oil, and waste acid (muriatic) are generated on site.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
Underground storage tanks were removed from two separate areas in 1988 and 1990. Soils were stained with varying degrees of grease and oil. Groundwater, encountered around 5 feet, was visibly stained with an oily sheen oil.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)
☐ A. HIGH (Inspection required promptly) ☐ B. MEDIUM (Inspection required) ☐ C. LOW (Inspect on time available basis) ☒ D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)			03 TELEPHONE NUMBER
Donna Santiago	U.S. EPA			(215) 597-1105
04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Shari Harris-Dunning	NUS	FIT 3	(215) 687-9510	01 23 91 (MONTH DAY YEAR)

EPA FORM 2070-12 (7-81)

ORIGINAL
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POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
PA	2825

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- [X] A. SOLID
- [ ] B. POWDER, FINES
- [X] C. SLUDGE
- [ ] D. OTHER (Specify)
- [ ] E. SLURRY
- [X] F. LIQUID
- [ ] G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS: _____
CUBIC YARDS: _____
NO. OF DRUMS: 330

03 WASTE CHARACTERISTICS (Check all that apply)

- [X] A. TOXIC
- [ ] B. CORROSIVE
- [ ] C. RADIOACTIVE
- [ ] D. PERSISTENT
- [X] E. SOLUBLE
- [ ] F. INFECTIOUS
- [X] G. FLAMMABLE
- [ ] H. IGNITABLE
- [ ] I. HIGHLY VOLATILE
- [ ] J. EXPLOSIVE
- [ ] K. REACTIVE
- [ ] L. INCOMPATIBLE
- [ ] M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE	14,000 gallons	8,000 and 6,000-gallon tanks	waste oils, wastewater
SOL	SOLVENTS	4 drums	55-gallon drums	removed by Safety-Kleen
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS	48 drums	55-gallon drums	waste salt nitrate
ACD	ACIDS	15 gallons		dilute concentrations of hydrochloric acid
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
SOL	1,1,1-trichloroethane	25323-89-1	55-gallon drums	unknown	unknown
ACD	hydrochloric acid	7647-01-0	above-ground storage tank	unknown (dilute)	unknown
IOC	waste salt nitrate	7632-00-0	55-gallon drums	unknown	unknown
OLW	waste oils, wastewater		above-ground storage tank	unknown	unknown

V. FEEDSTOCKS (See Appendix for CAS Numbers) N/A

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

EPA Files, Philadelphia, Pennsylvania.
PA DER Files. Harrisburg Office and Altoona Office, Pennsylvania.
NUS FIT 3. Preliminary assessment; site visit. TDD No. F3-9012-17, January 23, 1991.

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POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
PA	2825

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION
02 [X] OBSERVED (DATE: 3/88; 11/90) [ ] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 190
04 NARRATIVE DESCRIPTION

During the removal of underground storage tanks in 1988 and 1990, groundwater, encountered at shallow depths, was visibly stained with an oily sheen. Groundwater samples analyzed during the 1990 removal revealed levels of 1,1-dichloroethane and 1,1,1-trichloroethane. Within a 3-mile radius, 190 persons rely on private wells.

01 [X] B. SURFACE WATER CONTAMINATION
02 [X] OBSERVED (DATE: 1978) [X] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 6,708
04 NARRATIVE DESCRIPTION

Two pollution incidents involving the spillage of small quantities (5 and 10 gallons) of waste oil and wastewater into the storm sewer occurred in 1978. The storm sewer drains into Mill Creek. No surface water intakes receive drainage from the site. The population reflects 1-mile radius from the site. Mill Creek is used for recreational purposes.

01 [ ] C. CONTAMINATION OF AIR
02 [ ] OBSERVED (DATE:) [ ] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED:
04 NARRATIVE DESCRIPTION

None reported or observed.

01 [ ] D. FIRE/EXPLOSIVE CONDITIONS
02 [ ] OBSERVED (DATE:) [ ] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED:
04 NARRATIVE DESCRIPTION

None reported or observed.

01 [ ] E. DIRECT CONTACT
02 [ ] OBSERVED (DATE:) [ ] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED:
04 NARRATIVE DESCRIPTION

None reported or observed.

01 [X] F. CONTAMINATION OF SOIL
02 [X] OBSERVED (DATE: 3/88; 11/90) [ ] POTENTIAL [X] ALLEGED
03 AREA POTENTIALLY AFFECTED: approximately 4 acres (Acres)
04 NARRATIVE DESCRIPTION

During the removal of underground storage tanks in 1988 and 1990, soils were stained with oil and grease. Oil and grease contamination ranged from less than 500 ppm to 14,000 ppm.

01 [X] G. DRINKING WATER CONTAMINATION
02 [ ] OBSERVED (DATE:) [X] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 190
04 NARRATIVE DESCRIPTION

Within a 3-mile radius of the site, approximately 190 people rely on private domestic wells for drinking water. The closest well is about 2.1 miles east of the site.

01 [ ] H. WORKER EXPOSURE/INJURY
02 [ ] OBSERVED (DATE:) [ ] POTENTIAL [ ] ALLEGED
03 WORKERS POTENTIALLY AFFECTED:
04 NARRATIVE DESCRIPTION

None reported or observed.

01 [ ] I. POPULATION EXPOSURE/INJURY
02 [ ] OBSERVED (DATE:) [ ] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED:
04 NARRATIVE DESCRIPTION

None reported or observed.

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POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: PA | 02 SITE NUMBER: 2825

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None reported or observed.

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)

None reported or observed.

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None reported or observed.

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills/runoff/standing liquids/leaking drums) — 02 ☒ OBSERVED (DATE: 3/88;11/90) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 190 — 04 NARRATIVE DESCRIPTION

During the removal of underground storage tanks in 1988 and 1990, oil and grease contamination was detected in the surrounding soils and groundwater. Within a 3-mile radius, 190 people rely on home wells.

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None reported or observed.

01 ☒ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☒ OBSERVED (DATE: 1978 (1)) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Two pollution incidents involving the spillage of small quantities of waste oil and wastewater (5 and 10 gallons) into the storm sewer occurred in 1978. The storm sewer drains into Mill Creek.

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None reported or observed.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

None reported or observed.

III. TOTAL POPULATION POTENTIALLY AFFECTED: 6,708

IV. COMMENTS

None.

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

DER Files. Harrisburg and Altoona Offices, Pennsylvania.
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ORIGINAL
(Red)

SECTION 6

6.0 REFERENCES FOR SECTIONS 1.0 THROUGH 5.0

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4. SKF Ball Bearings Division, Altoona, Pennsylvania. Preparedness, Prevention and Contingency Plan. January 16, 1991.

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18. Szymusiak, John, Plant Engineer, SKF Ball Bearings Division, to Edward Simmons, Pennsylvania Department of Environmental Resources, Bureau of Solid Waste Management. Correspondence. April 15, 1983.

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20. Pallas, Gary, SKF Ball Bearings Division, with Shari Harris-Dunning, NUS FIT 3. Telecon. March 21, 1991.

21. Embeck, Mark, S., Solid Waste Specialist, Pennsylvania Department of Environmental Resources, Bureau of Solid Waste Management, to John Szymusiak, SKF Industries. Notice of Violation. July 13, 1984.

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ORIGINAL
(Red)

APPENDIX A

EPA

ACKNOWLEDGEMENT OF NOTIFICATION OF HAZARDOUS WASTE ACTIVITY
(VERIFICATION)

This is to acknowledge that you have filed a Notification of Hazardous Waste Activity for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act *(RCRA)*. Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Annual Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER ➤ PAD008344172

SKF BALL BEARINGS DIVISION SKF INDUSTR
PO BOX 1867
ALTOONA PA 16602

INSTALLATION ADDRESS ➤ 1000 LOGAN BOULEVARD
ALTOONA PA 16602

EPA Form 8700-12B (4-80) 10/09/80

Please print or type with ELITE type *(12 characters/inch)* in the unshaded areas only.

Form Approved OMB No. 158-S79016
GSA No. 0246-EPA-OT

EPA U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

INSTRUCTIONS: If you received a preprinted label, affix it in the space at left. If any of the information on the label is incorrect, draw a line through it and supply the correct information in the appropriate section below. If the label is complete and correct, leave items I, II, and III below blank. If you did not receive a preprinted label, complete all items. "Installation" means a single site where hazardous waste is generated, treated, stored and/or disposed of, or a transporter's principal place of business. Please refer to the INSTRUCTIONS FOR FILING NOTIFICATION before completing this form. The information requested herein is required by law *(Section 3010 of the Resource Conservation and Recovery Act)*.

INSTALLATION'S EPA I.D. NO.: PAD004344172

I. NAME OF INSTALLATION: SKF BALL BEARINGS DIVISION

II. INSTALLATION MAILING ADDRESS: S K F INDUSTRIES INC
1000 Logan Blvd
ALTOONA, PA 16602

III. LOCATION OF INSTALLATION: 1000 LOGAN BLVD
ALTOONA, PA 16602

DETACH

FOR OFFICIAL USE ONLY

COMMENTS: RCRA SECTION EPA REGION III

INSTALLATION'S EPA I.D. NUMBER	APPROVED	DATE RECEIVED (yr., mo., & day)
F PAD004344172 T/A 31		800818

AUG 18 80000271

I. NAME OF INSTALLATION

SKF BALL BEARINGS DIVISION SKF Industries Inc.

II. INSTALLATION MAILING ADDRESS

STREET OR P.O. BOX: 3 1000 LOGAN BOULEVARD

CITY OR TOWN: 4 ALTOONA — ST.: PA — ZIP CODE: 16602

III. LOCATION OF INSTALLATION

STREET OR ROUTE NUMBER: 5 1000 LOGAN BOULEVARD

CITY OR TOWN: 6 ALTOONA — ST.: PA — ZIP CODE: 16602

IV. INSTALLATION CONTACT

NAME AND TITLE *(last, first, & job title)*: 2 SZYMUSIAK JOHN PLANT ENGR

PHONE NO. *(area code & no.)*: 814-944-5381

V. OWNERSHIP

A. NAME OF INSTALLATION'S LEGAL OWNER: 8 SKF INDUSTRIES INC

B. TYPE OF OWNERSHIP *(enter the appropriate letter into box)*: M

F = FEDERAL
M = NON-FEDERAL

VI. TYPE OF HAZARDOUS WASTE ACTIVITY *(enter "X" in the appropriate box(es))*

- [X] A. GENERATION
- [ ] B. TRANSPORTATION *(complete item VII)*
- [X] C. TREAT/STORE/DISPOSE
- [ ] D. UNDERGROUND INJECTION

VII. MODE OF TRANSPORTATION *(transporters only – enter "X" in the appropriate box(es))*

- [ ] A. AIR
- [ ] B. RAIL
- [ ] C. HIGHWAY
- [ ] D. WATER
- [ ] E. OTHER *(specify)*:

VIII. FIRST OR SUBSEQUENT NOTIFICATION

Mark "X" in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your Installation's EPA I.D. Number in the space provided below.

- [X] A. FIRST NOTIFICATION
- [ ] B. SUBSEQUENT NOTIFICATION *(complete item C)*

C. INSTALLATION'S EPA I.D. NO.:

IX. DESCRIPTION OF HAZARDOUS WASTES

Please go to the reverse of this form and provide the requested information.

CONTINUE ON REVERSE

Please print or type in the unshaded areas only
(fill—in areas are spaced for elite type, i.e., 12 characters/inch).

Form Approved OMB No. 158-R0175

EPA — GENERAL INFORMATION

EPA I.D. NUMBER: P A D 0 0 4 3 4 4 1 7 2

FAD004344172
SKF BALL BEARINGS DIVISION
S K F INDUSTRIES INC
PO BOX 1867
ALTOONA, PA 16602

1000 LOGAN BLVD
ALTOONA, PA 16602

Nov 1980 000547

II. POLLUTANT CHARACTERISTICS

Question	YES	NO	FORM ATTACHED	Question	YES	NO	FORM ATTACHED
A. (FORM 2A)		X		B.		X	
C. (FORM 2C)		X		D.		X	
E. hazardous wastes? (FORM 3)	X		X	F.		X	
G. ... hydrocarbons? (FORM 4)		X		H.		X	
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X		J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

III. NAME OF FACILITY

1 SKF BALL BEARING DIVISION

IV. FACILITY CONTACT

A. NAME & TITLE (last, first, & title)	B. PHONE (area code & no.)
2 SZYMUSIAK JOHN PLT ENGR	814 944 5381

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

3 1000 LOGAN BLVD

B. CITY OR TOWN	C. STATE	D. ZIP CODE
4 ALTOONA	PA	16602

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

5 1000 LOGAN BLVD

B. COUNTY NAME

BLAIR

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE
6 ALTOONA	PA	16602	

EPA Form 3510-1 (6-80)

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

3562	(specify) Ball Bearing Manufacturing		(specify) ORIGINAL
	(specify)		(specify)

VIII. OPERATOR INFORMATION

A. NAME: SKF IND. INC

B. Is the name listed in Item VIII-A also the owner? [X] YES [ ] NO

C. STATUS OF OPERATOR (Enter the appropriate letter into the box): P (specify)

D. PHONE NUMBER: 814 944 5381

E. STREET ADDRESS: 1000 LOGAN BLVD

F. CITY OR TOWN: ALTOONA

G. STATE: PA

H. ZIP CODE: 16602

I. INDIAN LAND? [ ] YES [X] NO

IX. EXISTING ENVIRONMENTAL PERMITS

B. NPDES (Discharges to Surface Water)	N	C. UIC (Underground Injection of Fluids)	
D. RCRA (Hazardous Wastes)		E. PSD (Air Emissions from Proposed Sources)	
F. OTHER (specify)	7 30102 2	G. OTHER (specify)	Penna. Incinerator Burning
H. OTHER (specify)		I. OTHER (specify)	

X. MAP

Attach to this application a topographic map of the area extending at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XI. NATURE OF BUSINESS (provide a brief description)

Ball Bearing Manufacturer, Including: Metal Turning, Heat Treat, Grinding and Assembly and Packaging.

XII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
A. J. Coppola, President		11/14/80

COMMENTS FOR OFFICIAL USE ONLY

ORIGINAL
(Red)

Please print or type in the unshaded areas only
(fill—in areas are spaced for elite type, i.e., 12 characters/inch).

Form Approved OMB No. 158-S80004

FORM 3 RCRA

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

HAZARDOUS WASTE PERMIT APPLICATION

Consolidated Permits Program

(This information is required under Section 3005 of RCRA.)

I. EPA I.D. NUMBER

S												T/A	C
F	P	A	D	0	0	4	3	4	4	1	7	2	1

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (yr., mo., & day)	COMMENTS

II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below *(mark one box only)* to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

A. FIRST APPLICATION *(place an "X" below and provide the appropriate date)*

[X] 1. EXISTING FACILITY *(See instructions for definition of "existing" facility. Complete item below.)*

[ ] 2. NEW FACILITY *(Complete item below.)*

FOR EXISTING FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to the left)*

C	YR.	MO.	DAY
8	52	08	

FOR NEW FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR IS EXPECTED TO BEGIN

YR.	MO.	DAY

B. REVISED APPLICATION *(place an "X" below and complete Item I above)*

[ ] 1. FACILITY HAS INTERIM STATUS

[ ] 2. FACILITY HAS A RCRA PERMIT

III. PROCESSES — CODES AND DESIGN CAPACITIES

A. PROCESS CODE — Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process *(including its design capacity)* in the space provided on the form *(Item III-C)*.

B. PROCESS DESIGN CAPACITY — For each code entered in column A enter the capacity of the process.

1. AMOUNT — Enter the amount.
2. UNIT OF MEASURE — For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:		
CONTAINER *(barrel, drum, etc.)*	S01	GALLONS OR LITERS
TANK	S02	GALLONS OR LITERS
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS
Disposal:		
INJECTION WELL	D79	GALLONS OR LITERS
LANDFILL	D80	ACRE-FEET *(the volume that would cover one acre to a depth of one foot)* OR HECTARE-METER
LAND APPLICATION	D81	ACRES OR HECTARES
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
OTHER *(Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)*	T04	GALLONS PER DAY OR LITERS PER DAY

UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G
LITERS	L
CUBIC YARDS	Y
CUBIC METERS	C
GALLONS PER DAY	U
LITERS PER DAY	V
TONS PER HOUR	D
METRIC TONS PER HOUR	W
GALLONS PER HOUR	E
LITERS PER HOUR	H
ACRE-FEET	A
HECTARE-METER	F
ACRES	B
HECTARES	Q

EXAMPLE FOR COMPLETING ITEM III *(shown in line numbers X-1 and X-2 below)*: A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

S												T/A	C
C	D	U	P										1

LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
X-1	S02	600	G	
X-2	T03	20	E	
1	S02	22,000	G	
2				
3				
4				
5				
6				
7				
8				
9				
10				

Continued from the front.

III. PROCESSES *(continued)*

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESSES *(code "T04")*. FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

ORIGINAL
(Red)

IV. DESCRIPTION OF HAZARDOUS WASTES

A. **EPA HAZARDOUS WASTE NUMBER** — Enter the four—digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four—digit number*(s)* from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. **ESTIMATED ANNUAL QUANTITY** — For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non—listed waste*(s)* that will be handled which possess that characteristic or contaminant.

C. **UNIT OF MEASURE** — For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. **PROCESSES**

1. PROCESS CODES:
   For listed hazardous waste: For each listed hazardous waste entered in column A select the code*(s)* from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.
   For non—listed hazardous wastes: For each characteristic or toxic contaminant entered in column A, select the code*(s)* from the list of process codes contained in Item III to indicate all the processes that will be used to store, treat, and/or dispose of all the non—listed hazardous wastes that possess that characteristic or toxic contaminant.
   Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code*(s)*.

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER — Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B,C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM IV *(shown in line numbers X-1, X-2, X-3, and X-4 below)* — A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non—listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
X-1	K 0 5 4	900	P	T 0 3 D 8 0	
X-2	D 0 0 2	400	P	T 0 3 D 8 0	
X-3	D 0 0 1	100	P	T 0 3 D 8 0	
X-4	D 0 0 2				included with above

Continued from page 2.
NOTE: Photocopy this page before completing if you more than 26 wastes to list.

Form Approved OMB No. 158-S80004

EPA I.D. NUMBER (enter from page 1)	T/A	C	FOR OFFICIAL USE ONLY	T/A	C	
W P A D 0 0 4 3 4 4 1 7 2		1	W DUP		2	DUP

ORIGINAL (Red)

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	F001	6	T	S02	
2	F010	.5	T	S02	
3	F011	18	T	S02	
4	D001	800	T	S02	
5	D001	900	T	S02	
6	D002	.1	T	S02	
7	D004	.5	T	S02	
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					

Continued from the front.

IV. DESCRIPTION OF HAZARDOUS WASTES *(continued)*

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.

ORIGINAL
(Red)

EPA I.D. NO. *(enter from page 1)*

													T/A	C
F	P	A	D	0	0	4	3	4	4	1	7	2		6

V. FACILITY DRAWING

All existing facilities must include in the space provided on page 5 a scale drawing of the facility *(see instructions for more detail).*

VI. PHOTOGRAPHS

All existing facilities must include photographs *(aerial or ground–level)* that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas *(see instructions for more detail).*

VII. FACILITY GEOGRAPHIC LOCATION

LATITUDE *(degrees, minutes, & seconds)*	LONGITUDE *(degrees, minutes, & seconds)*
40 28 40N	78 24 30W

VIII. FACILITY OWNER

☒ A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER	2. PHONE NO. *(area code & no.)*
E SKF INDUSTRIES, INC.	215-265-1900

3. STREET OR P.O. BOX	4. CITY OR TOWN	5. ST.	6. ZIP CODE
F 1100 First Avenue	G King of Prussia	PA	19406

IX. OWNER CERTIFICATION

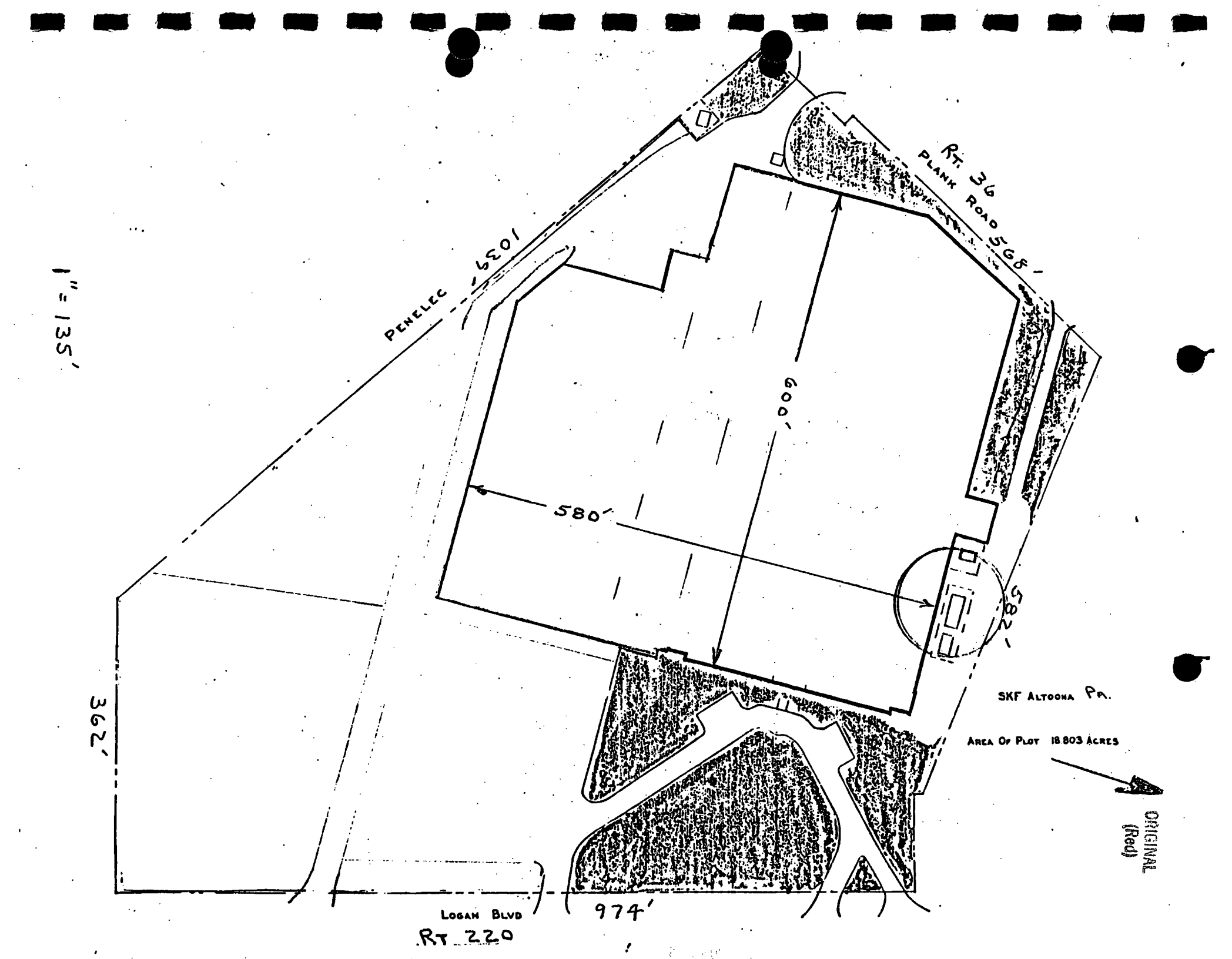
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME *(print or type)*	B. SIGNATURE	C. DATE SIGNED
A. J. Coppola, President		11/14/80

X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME *(print or type)*	B. SIGNATURE	C. DATE SIGNED
A. J. Coppola, President		3/17/81


1" = 135'
PENELEC
1035'
RT. 36
PLANK ROAD
568'
600'
580'
582'
362'
SKF ALTOONA PA.
AREA OF PLOT 18.803 ACRES
ORIGINAL
(Red)
LOGAN BLVD
RT 220
974'

NDITIONS OF OPERATION DURING INTERIM STATUS

Date Prepared: July 27, 1981

ORIGINAL (Red)

The information shown below is based solely on the information that the owner and operator of this facility submitted in Part A of the Hazardous Waste Permit Application. This is not a determination by EPA that this facility is an environmentally acceptable facility for treating, storing or disposing of the hazardous wastes listed below.

I. Facility name, location, and EPA Identification Number.

Name: SKF Ball Bearing Division

Location: 1000 Logan Blvd.
Altoona, PA 16602

EPA I.D. No.: PAD 00 434 4172

II. EPA considers the following to be the owner or operator of the facility and therefore the person(s) who must comply with the requirements set forth in 40 CFR Parts 122 and 265.

Owner's Name: Mr. A. J. Coppola-President

Operator's Name:

III. During the period of interim status, the facility may use only the following processes for treating, storing or disposing of hazardous waste, up to the design capacities that are indicated.

PROCESS	DESIGN CAPACITY
S02	22,000 Gals.

IV. During the period of interim status, the facility may handle only the hazardous wastes with the following EPA Hazardous Waste Numbers, and/or solid waste exhibiting hazardous characteristics with the following EPA Hazardous Waste Numbers.

F001	F010	F011	D001	D002
D004				

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF SOLID WASTE MANAGEMENT
407 South Cameron Street
Harrisburg, Pennsylvania 17101
(717) 787-9697
November 5, 1982

SKF Ball Bearings Division
SKF Industries
P.O. Box 1867
Altoona, PA 16602

Re: EPA Identification No. PAD 00 434 4172

Gentlemen:

This letter constitutes a formal request for Part B of your Application for a Hazardous Waste Management Facility Permit under the Hazardous Waste Management Regulations, 25 PA Code Chapter 75, Subchapter D, for the facility referenced above. This request is made under the authority of Section 75.265(z)(6) of the regulations. You should refer to the Hazardous Waste Management Regulations that appeared in the Pennsylvania Bulletin dated September 4, 1982, which was recently mailed to you, for the requirements of the Part B Application. Your Part B Application must be submitted no later than six months from the date of this notice. If there is information that is being claimed as confidential, indicate this according to the requirements of Section 75.265(z)(16).

Enclosed are reference checklists for your Part B Application that are to be used to insure your application contains the minimum information required. These checklists are to be used to assist you in your Part B Application and our subsequent review, although the checklists are not a substitute for reviewing and addressing the hazardous waste regulations themselves. Because you may be anticipating additional facilities at your location, we have included checklists for every type of facility covered by the Department requirements. Please use only those checklists that apply to the types of facilities for which you are making application.

Your Part B Application will be reviewed for a Hazardous Waste Management TSD Permit by both the U. S. Environmental Protection Agency and the Department of Environmental Resources until the Commonwealth of Pennsylvania receives Phase II Interim Authorization under the RCRA Program to soley administer a permitting program.

SKF BALL BEARINGS DIVISION
SKF INDUSTRIES, INC.

April 15, 1983

Commonwealth of Pennsylvania
Department of Environmental Resources
Bureau of Solid Waste Management
407 South Cameron Street
Harrisburg, Pennsylvania 17101

Att: Edward R. Simmons

Re: Deletion of T S D Activity

Enclosed are six copies of the EPA Notification of Hazardous Waste Activity showing the deletion of TSD activity at the SKF Ball Bearings Division Plant in Altoona, PA (Installation EPA I.D. No. PAD004344172). We will not store our hazardous waste longer than 90 days.

On the reverse side of the Notification of Hazardous Waste Activity we now list the current Hazardous Waste from Non-Specific sources "D003". Please remove any other listing of hazardous wastes which may have been transmitted on the original Notification of Hazardous Waste Activity and also on the application of permit. We have performed tests to identify all our wastes please eliminate the following wastes from our record: F001, F010, F011, D001, D002, and D004.

On November 5, 1983 SKF was formally requested to complete part B of the Hazardous Waste Management Facility Permit. Since we have deleted our TSD Facility status this should eliminate the need for this information. Please contact us if there is further information required.

Sincerely,

John Szymusiak
Plant Engineer

Copies: EPA Region III
P O BOX 1480
Philadelphia PA 19107
Att: Shirley Bulkin (6 copies)

Gerald J. Halbedl
File

RECEIVED
RCRA PERMITS
APR 21 1983
EPA, R3

1000 LOGAN BLVD., ALTOONA, PA 16602 | [814] 944-5381

Please print or type with ELITE type *(12 characters/inch)* in the unshaded areas only.

Form Approved. OMB No. 158-S80018
GSA No. 0246-EPA-OT

EPA U.S. ENVIRONMENTAL PROTECTION AGENCY
NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

INSTRUCTIONS: If you received a preprinted label, affix it in the space at left. If any of the information on the label is incorrect, draw a line through it and supply the correct information in the appropriate section below. If the label is complete and correct, leave items I, II, and III below blank. If you did not receive a preprinted label, complete all items. "Installation" means a single site where hazardous waste is generated, treated, stored and/or disposed of, or a transporter's principal place of business. Please refer to the INSTRUCTIONS FOR FILING NOTIFICATION before completing this form. The information requested herein is required by law *(Section 3010 of the Resource Conservation and Recovery Act).*

INSTALLATION'S EPA I.D. NO.: PAD004344172

I. NAME OF INSTALLATION:
SKF BALL BEARINGS DIVISION
SKF INDUSTRIES INC

II. INSTALLATION MAILING ADDRESS:
1000 LOGAN BLVD
ALTOONA, PA 16602

III. LOCATION OF INSTALLATION:
1000 LOGAN BLVD
ALTOONA, PA 16602

FOR OFFICIAL USE ONLY

COMMENTS:

INSTALLATION'S EPA I.D. NUMBER	APPROVED	DATE RECEIVED (yr., mo., & day)
P A D 0 0 4 3 4 4 1 7 2 T/A C 1		

I. NAME OF INSTALLATION: SKF BALL BEARINGS DIVISION

II. INSTALLATION MAILING ADDRESS

STREET OR P.O. BOX	CITY OR TOWN	ST.	ZIP CODE
1000 LOGAN BLVD	ALTOONS	PA	16602

III. LOCATION OF INSTALLATION

STREET OR ROUTE NUMBER	CITY OR TOWN	ST.	ZIP CODE
1000 LOGAN BLVD	ALTOONA	PA	16602

RECEIVED
RCRA PERMITS & PESTICIDES SECT
APR 21 1983

IV. INSTALLATION CONTACT

NAME AND TITLE (last, first, & job title)	PHONE NO. (area code & no.)
SZYMUSIAK JOHN --- PLANT ENGR.	814-944-5381

V. OWNERSHIP

A. NAME OF INSTALLATION'S LEGAL OWNER: SKF INDUSTRIES INC

B. TYPE OF OWNERSHIP (enter the appropriate letter into box): M
F = FEDERAL
M = NON-FEDERAL

VI. TYPE OF HAZARDOUS WASTE ACTIVITY *(enter "X" in the appropriate box(es))*

- [X] A. GENERATION
- [ ] B. TRANSPORTATION *(complete item VII)*
- [ ] C. TREAT/STORE/DISPOSE
- [ ] D. UNDERGROUND INJECTION

VII. MODE OF TRANSPORTATION *(transporters only – enter "X" in the appropriate box(es))*

- [ ] A. AIR
- [ ] B. RAIL
- [ ] C. HIGHWAY
- [ ] D. WATER
- [ ] E. OTHER *(specify):*

VIII. FIRST OR SUBSEQUENT NOTIFICATION

Mark "X" in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your Installation's EPA I.D. Number in the space provided below.

- [ ] A. FIRST NOTIFICATION
- [X] B. SUBSEQUENT NOTIFICATION *(complete item C)*

C. INSTALLATION'S EPA I.D. NO.: PAD004344172

IX. DESCRIPTION OF HAZARDOUS WASTES

Please go to the reverse of this form and provide the requested information.

CONTINUE ON REVERSE

I.D. – FOR OFFICIAL USE ONLY

W

X. DESCRIPTION OF HAZARDOUS WASTES *(continued from front)*

A. HAZARDOUS WASTES FROM NON–SPECIFIC SOURCES. Enter the four–digit number from 40 CFR Part 261.31 for each listed hazardous waste from non–specific sources your installation handles. Use additional sheets if necessary.

1 D003	2	3	4	5	6
7	8	9	10	11	12

B. HAZARDOUS WASTES FROM SPECIFIC SOURCES. Enter the four–digit number from 40 CFR Part 261.32 for each listed hazardous waste from specific industrial sources your installation handles. Use additional sheets if necessary.

13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

C. COMMERCIAL CHEMICAL PRODUCT HAZARDOUS WASTES. Enter the four–digit number from 40 CFR Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

31	32	33	34	35	36
37	38	39	40	41	42
43	44	45	46	47	48

D. LISTED INFECTIOUS WASTES. Enter the four–digit number from 40 CFR Part 261.34 for each listed hazardous waste from hospitals, veterinary hospitals, medical and research laboratories your installation handles. Use additional sheets if necessary.

49	50	51	52	53	54

E. CHARACTERISTICS OF NON–LISTED HAZARDOUS WASTES. Mark "X" in the boxes corresponding to the characteristics of non–listed hazardous wastes your installation handles. *(See 40 CFR Parts 261.21 – 261.24.)*

☐ 1. IGNITABLE (D001) ☐ 2. CORROSIVE (D002) ☒ 3. REACTIVE (D003) ☐ 4. TOXIC (D000)

XI. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

SIGNATURE	NAME & OFFICIAL TITLE *(type or print)*	DATE SIGNED
	Anthony J. Coppola, President	4/18/83

DETACH

DETACH

ORIGINAL
(Red)

SKF INDUSTRIES, INC.

ALTOONA DIVISION

ROLLING BEARINGS — MOTION ENGINEERING

BALL AND ROLLER BEARINGS

May 17, 1976

Dept. of Environmental Resources
Mr. Wilbur I. Taxis
Solid Waste Co-ordinator
736 West Fourth Street
Williamsport, Penna. 17701

Dear Mr. Taxis:

We have been advised by Mr. Mark A. Roller that approval for our Incinerator Project may require your Department's approval.

The purpose of this project is to incinerate normal trash such as wood, paper, etc., and to incinerate waste oils. The stack heat will then be diverted to a boiler to provide steam for Plant heating, thus reducing natural gas consumption.

Attached are copies of our application and correspondence to date, with the Air Pollution Control Division of the Pennsylvania D.E.R. for your evaluation.

Please advise if your Department approval is needed and if so forward the necessary applications.

Very truly yours,

SKF INDUSTRIES, INC.

W. D. Kozak
Mfg. Superintendent
Altoona Division

WDK:mja

cc: File

RECEIVED
DIVISION OF SOLID WASTE
MANAGEMENT

1000 LOGAN BOULEVARD, P. O. BOX 1867, ALTOONA, PA. 16603 • TELEPHONE: 814-944-7196

ORIGINAL
(Red)

SKF INDUSTRIES, INC.
ALTOONA DIVISION

ROLLING BEARINGS MOTION ENGINEERING
BALL AND ROLLER BEARINGS

March 18, 1976

Mr. Richard Murray
Air Pollution Control Engineer
Jamesway Plaza, R. D. #1
P. O. Box 35CC
Ebensburg, Pa. 15931

Dear Mr. Murray,

Attached are two copies of application to operate a controlled air, trash incinerator and equipment to recover waste heat, at SKF Ind., Inc., Altoona, Penna.

We consider this project as a positive step toward air pollution control and solid waste control as well as an energy conservation project.

April 15, 1976 is our current target date to place the unit in operation. Please call if there are any questions.

Sincerely,

W. D. Kozak
Mfg. Supt.
SKF Ind.

WK/lh

1000 LOGAN BOULEVARD, P. O. BOX 1867, ALTOONA, PA. 16603 • TELEPHONE: 814-944-7196

ORIGINAL
(Red)

April 30, 1976

Mr. Richard Murray
Air Pollution Control Engineer
Jamesway Plaza, R. D. #2
P. O. Box 3500
Ebensburg, Pennsylvania 15931

Dear Mr. Murray:

In answer to your questions during your visit to our proposed incinerator installation:

Section B.1. Part 3D

The retention time of .95 seconds is for the secondary burning chamber.

Section D. Part 2A

Particulate emmissions figures are from actual burning tests conducted by the incinerator manufacturer.

Section D. Part 2B

SO_2 emissions are calculated from oil sample analysis.

If there are any further questions, please call.

Sincerely,

BSF INDUSTRIES, INC.

W. D. Kozak
Mfg. Superintendent
Altoona Division

WDK:mja

CC: File

AQ-16 (3/73)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF AIR QUALITY & NOISE CONTROL

Page ORIGINAL (Red)

APPLICATION FOR PLAN APPROVAL TO CONSTRUCT, MODIFY OR REACTIVATE AN AIR CONTAMINATION SOURCE AND/OR AIR CLEANING DEVICE OR FOR A PERMIT TO OPERATE

Read the instructions carefully before completing this form. Submit duplicate copies.

Section A Identity and Location of Air Contamination Source

1A. Application is being made for:

- ☒ Construction of New Source
- ☐ Reactivation of a Source
- ☐ Modification of Existing Source
- ☐ Installation of Air Cleaning Device
- ☐ Extension of Plan Approval
- ☐ Amendment to a Previous Application
- ☐ Extension of Plan Approval
- ☒ Operating Permit
- ☐ Extension of Operating Permit

1B. Type of source: Incineration - Heat waste recovery

1C. Plant in which source is located: ☐ New ☒ Existing

1D. Expected date of completion: April 15, 76

1E. If source is new, does it replace another source (describe source replaced) ☐ Yes ☒ No

2A. Owner of source: SKF IND. INC

2B. Employer I.D. No. (Federal): 23-1043740

2C. Name of company official signing application (See instructions): W. D. KOZAK

2D. Title: MFG. SUPERINTENDENT

2E. Signature:

2F. Date: 3/29/76

2G. Mailing address (Street or P.O. Box, City, State, Zip Code): 1000 LOGAN BLVD ALTOONA, PENNA 16602

2H. Telephone: 814-944-7196

3A. Owners designation of source and/or plant if any: SKF IND. INC. ALTOONA DIVISION

3B. Location of source (Street address or Route No.): 1000 LOGAN BLVD. City or Municipality: ALTOONA County: BLAIR

3C. Mailing address, if different from 2G. (Street or P.O. Box, City, Zip Code): SAME AS 2G

3D. Telephone: —

4A. Person to contact regarding this Application (name and title): WILLIAM D. KOZAK, MFG. SUPT

4B. Mailing address (Street or P.O. Box, City, State, Zip Code) if different from 2G.: SAME AS 2G

4C. Telephone: —

5. Name and address of person who is to receive Plan Approval and Operating Permit if different from 2G.: SAME AS 2G.

ORIGINAL
(Red)

TYPE SEPARATE
AND ATTACH

Fuel oil analysis

Carbon (C)		79.7
Hydrogen (H)		10.3
Sulfur (S)		0.3
Water (H_2O)		9.7%
Sp. gr. 60%60°	—	0.82
BTU/Gal.		132,000
Deg API	—	41.06
lb/Gal.	—	6.83

Section B.1 -- Incinerators and F.. .s

ORIGINAL (Red)

1. INCINERATOR AND WASTE

A. Manufacturer	B. Model	C. Class	D. ☐ Multiple chambered ☒ Controlled air
HESSTON CORP	CA - 1000		

E. Rated capacity	F. Type of waste	G. BTU content as fired
10001b HR	1+5 Combination	6500 BTU/lb / 132,000 BTU/gal

H. If type 5,6 or special waste attach proximate and ultimate analysis	I. Density of waste (lbs/cu. yd.)	J. Daily amount
See attached analysis	1016/cu. ft 6.83 lb/Gal.	3501b/hr solid ☐ Estimated 60GPH oil ☒ Actual

2. PRIMARY COMBUSTION CHAMBER

A. Volume (cu. ft.)	B. Effective grate area (sq. ft.)	C. % Excess air
261	/	100%

D. % Air applied as overfire air	E. % As underfire
90	10

F. Ignition burner type and fuel	G. Number of burners	H. Capacity of each (BTU/hr.)
J-40-DS Natural Gas	DNE	400,000 maximum

3. SECONDARY COMBUSTION CHAMBER AND/OR AFTERBURNERS

A. Volume (cu. ft.)	B. Max. gas velocity (ft./sec.)	C. Temperature (°F)
140	5 @ 1400°F	1400 - 1800

D. Estimated hold time of gases (sec.) Show calculations

2500 SCFM → 8773.6 ACFM → 146.2 ACFS @ 1400°F

$\frac{140 \text{ cu. ft sec. chamber}}{146.2 \text{ CFS}} = 0.95 \text{ sec.}$ in Secondary Chamber only

E. Burner type and fuel	F. Number of burners	G. Capacity of each (BTU/hr.)
F-12-1 waste oil	DNE	8,400,000

4. DRAFT CONTROLS

☐ A. Barometric damper — Windshielding ☐ Yes ☐ No

☒ B. Guillotine or sliding damper

☒ C. Induced draft fan — Capacity (SCFM) 2,500

5. Total Heat Release (If multiple chambered) Excluding Ash Pit in BTU/hr./cu. ft. 27,618

6. MISCELANEOUS DEVICES AND CONTROLS

☒ A. Automatic loading device (Describe) Hydraulic feeding ram interlocked with incineration operation

☒ B. Self closing doors Hydraulic fire door

☒ C. Spark arrestor 3x3" mesh, SS-304, 14 gauge

☒ D. Flame failure protection equipment E1A control

☒ F. Method of creating turbulence for combustion gases (Describe) Forced draft fan - overfire combustion air

☒ F. Method of cleaning secondary or settling chamber (Describe) cleaning door - sec. chamber

☒ G. Other interlocking devices or controls (Describe) Heat Recovery System - Incineration interlocked with waste heat boiler

7. ☐ Outdoor Installation
☒ Indoor Installation (Describe method of supplying combustion air)

Air louver

8. FLARES — N. A.

ORIGINAL (Red)

A. Maximum and average SCFM burned

B. % Sulfur of waste gas

☐ C. Automatic ignition system

☐ D. Controls to prevent smoking

☐ E. Steam injection

☐ F. Noise reducing device

9. OPERATING SCHEDULE

16 hours/day 5 days/week 49 weeks/year

10. SEASONAL PERIODS (MONTHS)

Operating: JANUARY to DECEMBER — 12 MONTHS

Non-Operating: ____ to ____

11. If incinerator is rated at 50 tons per day or more, describe fully the facilities provided to record the daily burning rate and hours of operation.

NOT APPLICABLE

12. Describe modifications to incinerator in detail

NONE

13. Has application been made for a Solid Wastes Disposal Permit?

☐ Yes ☒ No

14. Briefly describe the method of handling any waste water from this installation and associated air pollution control equipment (Is a Water Quality Management Permit needed? ☐ Yes ☒ No)

WASTE WATER NOT PRESENT FROM INCINERATOR, BOILER IS CLOSED SYSTEM

15. Attach any and all additional information necessary to perform a thorough evaluation of the extent and nature of emissions from this incinerator.

OIL ANALYSIS ATTACHED

ORIGINAL (Red)

Section D - Flue And Air Contaminant Emission Information

1. STACK AND EXHAUSTER

A. Exhauster (attach fan curves) 4' 57 BHP @ 913 RPM

B. Stack height (ft)	C. Stack diameter (ft)	D. Weather cap
Incinerator Stack - 24' Boiler stack - 28'	27" I.D 14" I.D	Spark arestor ☐ Yes ☐ No

E. Indicate on an attached sheet the location of sampling ports with respect to exhaust fans, breeching, etc. Give all necessary dimensions.

Sampling ports are located on incinerator stack 14 feet above the last obstruction of flue gases (approx. 6 I.D of stack downstream)
Two (2) sampling ports, 90° apart, 3.0" coupling

F. Can the control equipment be bypassed? (If Yes, explain) ☐ Yes ☒ No

2. ATMOSPHERIC EMISSIONS

A. Particulate matter emissions (lbs/hr or gr/SCF Dry) 0.05 - 0.07 gr/scfd at 12% CO_2 ✓
(From unit in accordance Test)

B. Gaseous contaminant emissions

	Contaminants	Concentration		
(1)	CO	up to 50 ppm (Vol.)	____ lbs/hr	✓ (Calculated from appen oil sample analysis)
(2)	SO_2	up to 200 ppm (Vol.)	____ lbs/hr	
(3)	—	____ ppm (Vol.)	____ lbs/hr	

C. Outlet volume of exhaust gases

Boiler stack
4528 CFM
@ 500 °F
10 % Moisture

Incinerator stack
7830 CFM
at 1200°F
10% Moisture

ORIGINAL
(Red)

Section E - Miscellaneous Information

1. Describe fully facilities to monitor and record the emission of air contaminants. Provide detailed information to show that the facilities provided are adequate. Include cost and maintenance information. Periodic maintenance reports are to be submitted to the Department.

EPA TESTS AT START UP BY MANUFACTURER.
Unit has to be operated per manufacte's operating instruction

PERIODIC EMISSION TESTING
PERIODIC PREVENTIVE MAINTENANCE INSPECTIONS.

Attach Air Pollution Episode Strategy (if applicable) NOT APPLICABLE. WILL COMPLY WITH TITLE 25, CHAPTER 137 IF DEEMED NECESSARY

3. Briefly describe the general nature of the area in which the source is located.

AREA IS COMPOSED OF LIGHT MANUFACTURING OPERATIONS AND RETAIL BUSINESSES.

4. Attach calculations and any additional information necessary to thoroughly evaluate compliance with all the applicable requirements of Article III of the Rules and Regulations of the Department of Environmental Resources and those requirements promulgated by the Administrator of the United States Environmental Protection Agency pursuant to the provisions of the Clean Air Act.

5. List all attachments made to this Application.

Drwg's D-1190 D-1180-1
D-1185 FAN RATING CHART

FUEL OIL ANALYSIS

ORIGINAL
(Red)

RECEIVED

JUL 27 1976

ENVIRONMENTAL RESOURCES
LEWISTOWN REGIONAL OFFICE

736 West Fourth Street
Williamsport, Pennsylvania 17701
July 22, 1976

Permit Coordination
SKF Industries, Inc.
Altoona, Blair County

Ref: Application #7-301-022

Mr. W. D. Kozack, Manufacturing Superintendent
SKF Industries, Inc.
100 Logan Boulevard
Altoona, PA 16602

Dear Mr. Kozack:

I am pleased to inform you that the Plan Approval by the Bureau of Air Quality and Noise Control for the subject case is ready for issuance. The Plan Approval will be issued as soon as approval is received from the Bureau of Land Protection after their review of the proposal. Reference is made to the writer's letter of May 10, 1976, for further clarification.

You are advised that you may not construct or operate the proposed facility until all environmental concerns are satisfied. If you have any questions about the processing of your applications, please feel free to contact me.

Very truly yours,

Mark A. Roller
Environmental Protection Director

MAR:dr
cc: W. Taxis, SWM
R. Maxwell, AQNC

cc - CO
F. Bertrand ✓
Neal
7/26/76

ORIGINAL
(Red)

7-301-022

736 West 4th Street
Williamsport, PA 17701
July 22, 1976

Mr. W. D. Kozack
Manufacturing Superintendent
SKF Industries, Inc.
100 Logan Boulevard
Altoona, PA 16602

Dear Mr. Kozack:

This letter is to inform you that the Bureau of Air Quality is ready to issue a plan approval to construct a waste oil incinerator with heat recovery capacity at your Altoona facility. Unfortunately, we are unable to do so at this time as it is our understanding that the permit application requirements of the Bureau of Land Protection (Division of Solid Waste Management) with respect to this incinerator have not been fulfilled yet.

At such time as we are notified by Solid Waste Management that their permit application requirements have been satisfied, we will be free to issue you a plan approval (Bureau of Air Quality plan approval) to construct.

Should you have any questions relating to Solid Waste Management requirements, please contact Frank Bertovich, Environmental Protection Specialist, at (717) 242-0389. Should you have any other questions, please contact either Richard L. Murray, Air Pollution Control Engineer, at (814) 472-5071 or myself at (717) 326-2631, Extension 271.

Sincerely,

Richard L. Maxwell, Jr.
Air Pollution Control Engineer
Williamsport Regional Office

RLM:McD.

cc: Permit Section, Harrisburg
Ebensburg Air Quality
Wilbur Taxis
Mark Roller
Frank Bertovich, S. W., EPS, Lewistown

ORIGINAL
(Red)

Bureau of Land Protection
Division of Solid Waste Management
29 Chestnut Street
Lewistown, Pennsylvania 17044

June 7, 1976

Mr. Herb Williams
S. K. F. Industries, Inc.
Altoona Division
~~1000~~ Logan Boulevard
P. O. Box 1867
Altoona, Pennsylvania 16603

Re: Application for Permit for
Disposal of Solid Waste

Dear Mr. Williams:

I am enclosing the application for permit for Solid Waste Disposal as was discussed over the telephone on May 28, 1976. As I explained this must be filled out in triplicate, along with a narratice of the incinerator's operation. The narrative should include what would be done with the waste if the incinerator should be shut down for any reason. Also, include how and where the residue will be disposed. The Department requests a copy of the Operational Manual of the unit.

All of the aforementioned material should be submitted in triplicate to my office in Lewistown. If you have any further questions please feel free to contact me. My telephone number is 717-242-0380.

Yours,

Francis J. Bertovich
Solid Waste Specialist

FJB:jid
Enclosures

Transmittal
ORIGINAL
(Red)

RECEIVED
SEP 1 1976
ENVIRONMENTAL RESOURCES
LEWISTOWN REGIONAL OFFICE

736 West Fourth Street
Williamsport, PA 17701
August 31, 1976

Incineration Facility
SKF Industries, Inc.
Altoona, Blair County

Mr. Herbert M. Williams, Plant Engineer
SKF Industries, Inc.
P. O. Box 1867
Altoona, PA 16603

Dear Mr. Williams:

This will acknowledge receipt of your application for permit for the subject facility.

Since plan approval of this incinerator is ready for issuance by the Bureau of Air Quality, review of your Solid Waste Management application will be accomplished as quickly as possible.

Very truly yours,

Wilbur I. Taxis
Regional Solid Waste Director

cc: Division of Solid Waste Management
Mr. Bertovich, DWSM, Lewistown
Mr. Roller, RP Director
Mr. Maxwell, BAQNC

ORIGINAL (Red)

Per your request, an Incinerator Operational Manual is also enclosed.

Your approval is respectfully requested.

Yours truly,

BSF INDUSTRIES, INC.

Herbert M. Williams
Plant Engineer
Altoona Division

HMW:mja

Enclosures

Frank C.

SKF INDUSTRIES, INC.

ALTOONA DIVISION

ROLLING BEARINGS · MOTION ENGINEERING

BALL AND ROLLER BEARINGS

August 17, 1976

Department of Enviromental Resources
Bureau of Land Protection
Division of Solid Waste Management
29 Chestnut Street
Lewistown, Pennsylvania 17044

Attention: Mr. Francis J. Bertovich

Dear Mr. Bertovich:

Enclosed is an application for Permit for Solid Waste Disposal, completed in triplicate.

The Permit is requested for the installation of an incinerator at our Altoona Division Plant.

The system is designed to incinerate up to 20 cubic yards per day of miscellaneous trash and paper, up to 30 wooden pallets per week, up to 250 gallons per week of kerosene - oil mixture, up to 1,000 gallons per day tramp oil - water mixture with a contemplated burning time of 16 hours.

The system includes an automatic hydraulic loader to handle the solid waste. The liquid waste will be pumped through a filtering system directly into a dual fuel burner resulting in a very small amount of auxiliary fuel being needed.

The system includes a waste heat boiler capable of producing up to 3,400 pounds of steam per hour.

The limited residue will be disposed of by our contract trash hauler to a local land fill. Parshall Landfill ID No. 100154.

If the incinerator should be shut down for any reason, the waste would be accumulated for later processing and or disposed of by contract hauler.

This project is designed to reduce energy consumption and to improve solid waste control.

The Bureau of Air Quality and Noise Control have tentatively approved our plan pending approval from your department.

1000 LOGAN BOULEVARD. P. O. BOX 1867. ALTOONA. PA. 16603 · TELEPHONE: 814-944-7196

ORIGINAL
(Red)

R-BLP-10 Rev. 1/74

RECEIVED
DIVISION OF SOLID WASTE
AUG 13 1976
MANAGEMENT

Commonwealth of Pennsylvania
Department of Environmental Resources
Solid Waste Management

AUG 13 1976
MANAGEMENT

ORIGINAL (Red)

Permit Number

APPLICATION FOR PERMIT FOR SOLID WASTE DISPOSAL and/or PROCESSING FACILITIES

INSTRUCTIONS on Reverse Side

1. Applicant (Name and Address)
BASF INDUSTRIES, INC.
Altoona Division
1000 Logan Boulevard
P. O. Box 1867
Altoona, Penna. 16603

2. Authorized Agent (Name, Title and Address)
H. M. Williams
Plant Engineer
Same Address

DEPT. USE ONLY
ID. No. _____
Date Rec'd _____
Publ. Date _____
Date Issued _____

3. Property Owner(s) (Name and Address)
BASF INDUSTRIES, INC.
Front St. & Erie Ave.
P. O. Box 8731
Philadelphia, Penna. 19132

4. Type of Operation Incinerator

5.
Name of Facility BASF INDUSTRIES, INC.
Address of Facility 1000 Logan Boulevard
Altoona, Pa. ZIP 16603
City-Borough-Township Altoona County Blair

6. U.S.G.S. Map Location of Facility
Map Name U.S.G.S. Topo Date 1963
7.5' Quad [ ] 15' Quad [X] Provide 7.5' Quad if published
Center of Facility: LAT. 40° 28' 30"
LONG. 78° 24' 19"
Facility location measured from S.E. corner of Map:
N.E. Corner – NORTH ___ in. WEST ___ in.
N.W. Corner – NORTH ___ in. WEST ___ in.
S.E. Corner – NORTH 18 in. WEST 3.9 in.
S.W. Corner – NORTH ___ in. WEST ___ in.

7. General Information: Existing [ ] Proposed [X]
Number of acres proposed for permit 000.0
Total acres of the property 026.0
Planned life of the facility 12 years
Has this facility been included as a part of the Solid Waste Management Plan for the area?
YES [ ] NO [X]
Is County Commission's approval required?
YES [ ] NO [ ] Unknown

8. The following documents are attached where applicable:
Site Application Module phase I [ ] phase II [ ]
Ground Water Module phase I [ ] phase II [ ]
U.S.G.S. Topo Map [ ] U.S.D.A. Soils Map [ ]
Large Scale Topo Map [ ] (Min. scale 1" = 200')
Design and Operational Plan(s) [ ]
Incinerator Modules A [ ] B [ ] C [ ] D [ ]

9. Documents prepared by: (Name, Title and Address)
H.M. Williams
Plant Engineer
BASF Industries, Inc.
1000 Logan Boulevard
Altoona, Penna. 16603
Telephone Number 814-944-5301

10. AFFIDAVIT:
COMMONWEALTH OF PENNSYLVANIA
COUNTY OF Blair SS:
Sworn and subscribed to before me this
17th Day of August 1976
Robert F. Abendroth
NOTARY PUBLIC
My Commission Expires 7/16/77

PRINT or TYPE Name to be Signed: Date:
I, Herbert H. Williams being duly sworn according to law, depose and say that I (am the applicant) (am an officer or official of the applicant) (have the authority to make this application) and that the documents and statements submitted as part of this application are true and correct to the best of my knowledge and belief.
Signature H M Williams

ORIGINAL
(Red)

September 2, 1976

Recommendation for Permit
Incineration Facility

RECEIVED
SEP 3 1976
ENVIRONMENTAL RESOURCES
LEWISTOWN REGIONAL OFFICE

Dwight D. Worley, Chief
Operations Unit
Division of Solid Waste Management

Wilbur I. Taxis
Regional Solid Waste Director
Williamsport Regional Office

The following application has been reviewed and found to be satisfactory. It is recommended that permit be issued as soon as possible inasmuch as the Air Quality plan approval of the facility is ready for issuance.

A. ID (not yet assigned)

B. Altoona

C. Blair County

D. SKF Industries, Inc.
Altoona Division
1000 Logan Boulevard
P. O. Box 1867
Altoona, PA 16603

E. SKF Industries, Inc. incinerator

F. Latitude - 40° 28' 30"
Longitude - 78° 24' 19"

G. no special conditions

WIT:mm
cc: Mr. Neal
Mr. Bertovich
file

attachments: application and transmittal letter
plan of operation (manual)
related correspondence

ORIGINAL
(Red)

RECEIVED
NOV 18 1976
ENVIRONMENTAL RESOURCES
LEWISTOWN REGIONAL OFFICE

736 West Fourth Street
Williamsport, Pennsylvania 17701
November 15, 1976

CERTIFIED MAIL #819154

Permit Coordination
SKF Industries, Inc.
Altoona, Blair County

Mr. W. D. Kozak
Manufacturing Superintendent
SKF Industries, Inc.
1000 Logan Boulevard
Altoona, PA 16602

Dear Mr. Kozak:

I am pleased to inform you that the Plan Approval and Temporary Operating Permit by the Bureau of Air Quality and Noise Control and Permit by the Bureau of Land Protection for the subject case have been approved. Attached please find Plan Approval and Temporary Operating Permit No. 7-301-022 for the Bureau of Air Quality and Noise Control and Permit No. 300637 for the Bureau of Land Protection.

Each approval should be processed in accordance with any letter of instruction accompanying the approval.

Very truly yours,

Mark A. Roller
Acting Regional Director

MAR:dr
Enclosures
cc: R. Maxwell, AQNC
W. Taxis, SWM

ER-BLP-23:REV. 8/74

Bertovich (Red)

RECEIVED

NOV 18 1976

ENVIRONMENTAL RESOURCES
LEWISTOWN REGIONAL OFFICE

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LAND PROTECTION

Permit
For
Solid Waste Disposal and/or Processing Facility

Permit No. 300637
Date Issued NOV 15 1976
Date Expired

Under the provisions of Act 241, The Pennsylvania Solid Waste Management Act, P.L. #788, a permit for a solid waste disposal and/or processing facility at (municipality) Altoona in the County of Blair is granted to (applicant) SKF Industries, Inc., Altoona Division (address) 1000 Logan Boulevard, P. O. Box 1867 Altoona, Pennsylvania 16603

This permit is applicable to the facility named as SKF Industries, Inc. Incinerator and described as:

SKF Industries, Inc. Incinerator
Mfg: Hesston Corporation; Model: CA-1000
Waste Type: IV

Latitude 40° 28' 30" N
Longitude 78° 24' 19" W

This permit is subject to modification, amendment and supplement by the Department of Environmental Resources and is further subject to revocation or suspension by the Department of Environmental Resources for any violation of the applicable laws or the rules and regulations adopted thereunder, for failure to comply in whole or in part with the conditions of this permit and the provisions set forth in the application no. 300637 which is made a part hereof, or for causing any condition inimical to the public health, safety or welfare.

Donald A. Lazarchik

FOR THE DEPARTMENT OF
ENVIRONMENTAL RESOURCES

THIS PERMIT IS NON-TRANSFERABLE

C.O. #42
WL-5?5

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

BUREAU OF SOLID WASTE MANAGEMENT
615 Howard Avenue
Altoona, Pennsylvania 16601

(814) 946-7292

ORIGINAL (Red)

July 13, 1984

CERTIFIED MAIL #P307 486 667

Mr. John Szymusiak
SKF Industries, Inc.
1000 Logan Boulevard
Altoona, PA 16603

Re: Hazardous Waste Inspection
SKF Ball Bearings Division
Altoona, Blair County
PAD 004 344 172

NOTICE OF VIOLATION

Dear Mr. Szymusiak:

On July 12, 1984, a hazardous waste generator inspection was conducted at the above-referenced facility by this inspector. During this inspection the following continuing violations of 25 PA Code Chapter 75 were noted:

1. 75.262(g). On-site accumulation of hazardous waste without a permit for a period greater than 90 days.

2. 75.262(g)(1)(v). Failure to comply with the requirements of §75.265(h) (relating to preparedness and prevention), and §75.265(i) (relating to contingency plan and emergency procedure).

Therefore, you are hereby advised to accomplish the following corrective measures:

1. Ensure the prompt removal of all hazardous waste which has been stored over the 90 day limit. This removal should be completed no later than 15 days following the resumption of plant operations on July 30, 1984, and be conducted in compliance with all applicable, State, Federal, and local regulations.

2. A Preparedness, Prevention and Contingency plan, consistent with 25 PA Code, Chapter 75.265(i), should be prepared and implemented within 30 days of receipt of this Notice.

Compliance with the provisions of this Notice should not be construed as to grant immunity from prosecution for any violations of the Statutes of the Commonwealth.

Should you have any questions concerning this Notice, feel free to contact me at this office.

DER
BUREAU OF SOLID WASTE
JUL 17 1984

Sincerely,

Mark S. Embeck

Mark S. Embeck
Solid Waste Specialist

MSE/kc
c: Frank Fair
C.O. through R.O. ✓
File

EPA

ORIGINAL
(Red)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF WASTE MANAGEMENT
Harrisburg Regional Office
One Ararat Boulevard
Harrisburg, Pennsylvania 17110
(717) 657-4588

DEC - 1 1988

CERTIFIED MAIL NO. P 899-747-208

SKF Industries, Inc.
1000 Logan Boulevard
Altoona, PA 16603

Attn: Mr. Gerald Halbedl

Re: Non-Compliance Hazardous Waste Activity
SKF Industries, Inc.
I.D. No. PAD 004344172
Altoona, Blair County

Gentlemen:

Pursuant to the telephone conversation on July 12, 1988, I am forwarding three (3) copies of a Letter-Agreement in settlement of SKF Industries, Inc.'s (hereinafter "SKF") violations of the Pennsylvania Solid Waste Management Act, the Act of July 7, 1980, P.L. 380, 35 P.S. §6018.101 et seq., (hereinafter "SWMA"), and the Rules and Regulations promulgated thereunder which occurred on June 2, 1988, at SKF in Altoona, Blair County, Pennsylvania.

Please have two (2) authorized officials of SKF sign all three (3) copies and return them to this office within ten (10) days of your receipt thereof. You will receive an executed copy for your records after the document is signed on behalf of the Department of Environmental Resources (hereinafter "Department").

The facts of the matter and the terms of settlement are as follows:

1. SKF is a Delaware corporation engaged in the manufacturing of ball bearings and is located at 1000 Logan Boulevard, Altoona, Blair County, Pennsylvania 16601 ("Altoona Plant").

2. SKF generates hazardous waste at the Altoona Plant and is identified by the Generator's U.S. EPA I.D. No. PAD 004344172.

3. An inspection of the Altoona Plant on June 2, 1988, by the Department revealed:

ORIGINAL
(Red)

a. SKF failed to mark clearly and correctly the generator number on Manifest PAB 3789612, dated March 3, 1987, contrary to 25 PA Code §75.262(e)(7)(i).

b. SKF failed to file quarterly reports with the Department since the second quarter of 1986, contrary to 25 PA Code §75.262(i)(1).

c. SKF failed to produce during the inspection a contingency plan, approved by the Department, for the Altoona Plant, contrary to 25 PA Code §75.262(m)(5).

d. SKF has failed since 1983 to annually review and evaluate the on-the-job personnel training program for new employees, in accordance with 25 PA Code §75.265(f)(5). This is contrary to 25 PA Code §25.262(g)(1)(v).

e. SKF failed to manage its hazardous waste container storage area, in accordance with 25 PA Code §75.265(q)(5). This is contrary to 25 PA Code §75.262(g)(1)(iii).

4. SKF's actions as described above constitute unlawful conduct pursuant to Sections 403(b)(5), (7), (9), (10), and (11) and 610(4) and (9) of the SWMA, 35 P.S. §§ 6018.403(b)(5), (7), (9), (10), (11) and 6018.610(4) and (9), and constitute a public nuisance pursuant to Section 601 of SWMA, 35 P.S. §6018.601.

5. In settlement of all claims for monetary penalties assessable pursuant to Section 605 of the SWMA, 35 P.S. §6018.605, for the violations described in Paragraphs 3 and 4 above, SKF agrees to pay to the "Commonwealth of Pennsylvania, Solid Waste Abatement Fund" the sum of Three Thousand Dollars ($3,000). This sum is a figure for settlement purposes only as set forth herein, and shall be due and payable upon execution of this Letter-Agreement. Said Three Thousand Dollar ($3,000) payment shall be submitted to the Department together with the signed copies of this Letter-Agreement and shall be in the form of a certified check or the like, made payable to the "Commonwealth of Pennsylvania Solid Waste Abatement Fund" and shall be forwarded to Michael R. Steiner, Regional Solid Waste Manager, Bureau of Waste Management, Department of Environmental Resources, One Ararat Boulevard, Harrisburg, PA 17110.

ORIGINAL
(Red)

6. In consideration of the timely receipt of the above payment and the execution of this Letter-Agreement by SKF, the Department agrees not to initiate any action pursuant to Section 605 of the SWMA, supra, against SKF for violations of the SWMA which occurred on June 2, 1988, as described in Paragraphs 3 and 4 above; provided, however, that nothing in this Letter-Agreement shall be construed as to relieve SKF from any future liability for environmental damage which may have resulted from the activities described herein.

7. Nothing contained in this Letter-Agreement shall be construed to relieve or limit the obligations of SKF to comply with the terms and conditions of any permit existing or hereafter issued by the Department to SKF or to limit any civil or criminal liability of SKF for violations of the law except as specifically set forth in paragraphs 5 and 6 above.

Sincerely,

Michael R. Steiner

Michael R. Steiner
Regional Solid Waste Manager
Harrisburg Regional Office

The facts and terms of this Letter-Agreement are hereby consented and agreed to:

FOR COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES:

Michael R. Steiner

Michael R. Steiner
Regional Solid Waste Manager
Harrisburg Regional Office

SKF USA Inc. formerly known as

FOR SKF INDUSTIRES, INC.:

Name:
~~President or Vice President~~
Secty & General Counsel

APPROVED AS TO LEGALITY AND FORM:

Assistant Counsel
Office of Chief Counsel

Name:
~~Secretary or~~ Treasurer

Execution Date 12/30/88
(Dated by last signatory hereto)

AFFIX CORPORATE SEAL

SKF USA INC. CORPORATE SEAL 1933

ORIGINAL
(Red)

NO. 562454

SKF USA Inc.

REMITTANCE STATEMENT

GENERAL OFFICE > 1100 FIRST AVENUE KING OF PRUSSIA, PA 19406

VENDOR NO.	PI NO	VENDOR INVOICE NO.	YOUR INV DATE MO.	DAY	YEAR	SKF INVOICE	GROSS AMOUNT	DISCOUNT	AMOUNT OF PAYMENT
02216	6	120188	12	01	88	A9230	3,000.00		3,000.00
							3,000.00		3,000.00

PLANT ID

DETACH BEFORE DEPOSITING

NO 562454
562454

SKF USA Inc.
King of Prussia, PA

DATE 12 | 22 | 88

PAY TO THE ORDER OF

COMMONWEALTH OF PA
DEPT OF ENVIRONMENTAL
BUREAU OF WASTE MGT
ONE ARARAT BOULEVARD
HARRISBURG PA 17110

EXACTLY ***3,000 DOLLARS 00 CENTS

Core States Bank
of Delaware NA

AUTHORIZED SIGNATURE

"562454" :031100225: 0034"1956"

ORIGINAL
(Red)

APPENDIX B

DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company

ORIGINAL (Red)

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company SKF
City/State
Contact
Telephone

EPA ID No.
Field No.
Lab No. 8804019

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS.

SAMPLING DESCRIPTION:

Sample Location: B3 (See Map)
Boring/Well No.: B3 (4-6')
Depth of sample: 4-6'
Type of sampler: Trowel ~~Split-Spoon~~ Auger Other
Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): (GRAVEL) (SAND) (SILT) (CLAY) SOIL POWDER SLUDGE SLURRY OTHER
2. Size Distribution (percentage: 15 GRAVEL 15 SAND 70 FINES
3. Color (Munsell notation, if applicable): lt gray red-gray to brown
4. Odor (circle one): NONE EARTHY ORGANIC OTHER
5. Moisture Content: DRY (MOIST) WET SATURATED
6. Density: LOOSE (DENSE)
7. Consistenty (if applicable): SOFT (MEDIUM) STIFF HARD
8. Structure: STRATIFIED BLOCKY (NONSTRATIFIED)
9. Local or Geoligic Name:
10. Other Information:

SAMPLE TAKEN BY: RCW DATE: 3-31-88
WITNESS: DATE SHIPPED:

FOR LAB USE ONLY

CUSTODIAN Frances A. McCauley DATE RECEIVED: 4-6-88
REPORTER PERIOD OF ANALYSIS:
DATE OF REPORT:

SHIP TO:

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company

ORIGINAL (Red)

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company SKF — EPA ID No. _____

City/State _____ — Field No. _____

Contact _____ — Lab No. 8[illegible]

Telephone _____

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS.

SAMPLING DESCRIPTION:

Sample Location: B3 (See Map)

Boring/Well No.: B3 (6-8')

Depth of sample: 6-8'

Type of sampler: Trowel (Split-Spoon) Auger Other _____

Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): (GRAVEL) (SAND) (SILT) (CLAY) SOIL POWDER SLUDGE SLURRY OTHER _____
2. Size Distribution (percentage: 30 GRAVEL 20 SAND 50 FINES
3. Color (Munsell notation, if applicable): Shades of brown and gray
4. Odor (circle one): NONE EARTHY ORGANIC OTHER _____
5. Moisture Content: DRY (MOIST) (WET) SATURATED
6. Density: LOOSE (DENSE)
7. Consistenty (if applicable): (SOFT) MEDIUM STIFF HARD
8. Structure: STRATIFIED BLOCKY (NONSTRATIFIED)
9. Local or Geoligic Name: _____
10. Other Information: _____

SAMPLE TAKEN BY: RCW — DATE: 3-31-88

WITNESS: _____ — DATE SHIPPED: _____

FOR LAB USE ONLY

CUSTODIAN Frances J. McCauley — DATE RECEIVED: 4-6-88

REPORTER [signature] — PERIOD OF ANALYSIS: 4-22-88

DATE OF REPORT: 4-24-88

SHIP TO:

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company SKF
City/State
Contact
Telephone

EPA ID No.
Field No.
Lab No. [illegible]

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS.

SAMPLING DESCRIPTION:

Sample Location: B3 (See Map)
Boring/Well No.: B3 (5-10')
Depth of sample: 8-10'
Type of sampler: Trowel (Split-Spoon) Auger Other
Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): GRAVEL SAND SILT (CLAY) SOIL POWDER SLUDGE SLURRY OTHER
2. Size Distribution (percentage: GRAVEL SAND 100 FINES
3. Color (Munsell notation, if applicable): Light brown
4. Odor (circle one): NONE EARTHY ORGANIC OTHER
5. Moisture Content: DRY (MOIST) WET SATURATED
6. Density: LOOSE (DENSE)
7. Consistenty (if applicable): SOFT MEDIUM STIFF (HARD)
8. Structure: (STRATIFIED) BLOCKY NONSTRATIFIED
9. Local or Geoligic Name:
10. Other Information:

SAMPLE TAKEN BY: RCW DATE: 3-31-88
WITNESS: DATE SHIPPED:

FOR LAB USE ONLY

CUSTODIAN Laura P. McGrady DATE RECEIVED: 4-6-88
REPORTER PERIOD OF ANALYSIS: 4-22-88
DATE OF REPORT: 4-28-88

SHIP TO:

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company

ORIGINAL (Red)

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company SKF — EPA ID No. _____
City/State _____ — Field No. _____
Contact _____ — Lab No. 8804005-C
Telephone _____

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS.

SAMPLING DESCRIPTION:

Sample Location: B4 (See map)
Boring/Well No.: B4 (4-6')
Depth of sample: 4-6'
Type of sampler: Trowel (Split-Spoon) Auger Other _____
Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): GRAVEL SAND SILT (CLAY) SOIL POWDER SLUDGE SLURRY OTHER Shale
2. Size Distribution (percentage: ____ GRAVEL ____ SAND 95 FINES
3. Color (Munsell notation, if applicable): Light gray to light brown
4. Odor (circle one): NONE EARTHY ORGANIC OTHER _____
5. Moisture Content: DRY (MOIST) WET SATURATED
6. Density: LOOSE (DENSE)
7. Consistenty (if applicable): SOFT MEDIUM (STIFF) HARD
8. Structure: (STRATIFIED) BLOCKY NONSTRATIFIED
9. Local or Geoligic Name: _____
10. Other Information: _____

SAMPLE TAKEN BY: RCW — DATE: 3-30-88
WITNESS: _____ — DATE SHIPPED: _____

FOR LAB USE ONLY

CUSTODIAN Laura B. McCready — DATE RECEIVED: 4-6-88
REPORTER _____ — PERIOD OF ANALYSIS: 4-27-88
DATE OF REPORT: 6-28-88

SHIP TO:
LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company

ORIGINAL (Red)

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company SKF
City/State
Contact
Telephone

EPA ID No.
Field No.
Lab No. 16404-01

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS.

SAMPLING DESCRIPTION:

Sample Location: B-1 (Sec map)
Boring/Well No.: B1 (5-10')
Depth of sample: (5-10')
Type of sampler: Trowel (Split-Spoon) Auger Other
Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): GRAVEL SAND SILT (CLAY) SOIL POWDER SLUDGE SLURRY OTHER Shale
2. Size Distribution (percentage: GRAVEL SAND 99 FINES
3. Color (Munsell notation, if applicable): Mostly gray
4. Odor (circle one): NONE EARTHY ORGANIC OTHER
5. Moisture Content: DRY (MOIST) (WET) SATURATED
6. Density: LOOSE (DENSE)
7. Consistenty (if applicable): SOFT MEDIUM (STIFF) HARD
8. Structure: (STRATIFIED) BLOCKY NONSTRATIFIED
9. Local or Geoligic Name:
10. Other Information:

SAMPLE TAKEN BY: RCW DATE: 3-30-88
WITNESS: DATE SHIPPED:

FOR LAB USE ONLY

CUSTODIAN Frances P. McCormick DATE RECEIVED: 4-6-88
REPORTER PERIOD OF ANALYSIS: 4-22-88
DATE OF REPORT: 4-22-88

SHIP TO: LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company

ORIGINAL (Red)

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company SKF

City/State

Contact

Telephone

EPA ID No.

Field No.

Lab No. 8040087

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS.

SAMPLING DESCRIPTION:

Sample Location: B4 (See Map)

Boring/Well No.: B4 (12-14')

Depth of sample: 12-14'

Type of sampler: Trowel (Split-Spoon) Auger Other

Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): GRAVEL SAND SILT (CLAY) SOIL POWDER SLUDGE SLURRY OTHER Claystone
2. Size Distribution (percentage: ____ GRAVEL ____ SAND 100 FINES
3. Color (Munsell notation, if applicable): Medium brown
4. Odor (circle one): NONE EARTHY ORGANIC OTHER
5. Moisture Content: DRY (MOIST) WET SATURATED
6. Density: LOOSE (DENSE)
7. Consistenty (if applicable): SOFT MEDIUM STIFF (HARD)
8. Structure: (STRATIFIED) BLOCKY NONSTRATIFIED
9. Local or Geoligic Name:
10. Other Information: Outside of spoon is wet

SAMPLE TAKEN BY: RCW

DATE: 3-30-88

WITNESS:

DATE SHIPPED:

FOR LAB USE ONLY

CUSTODIAN Francis R. McCrorky

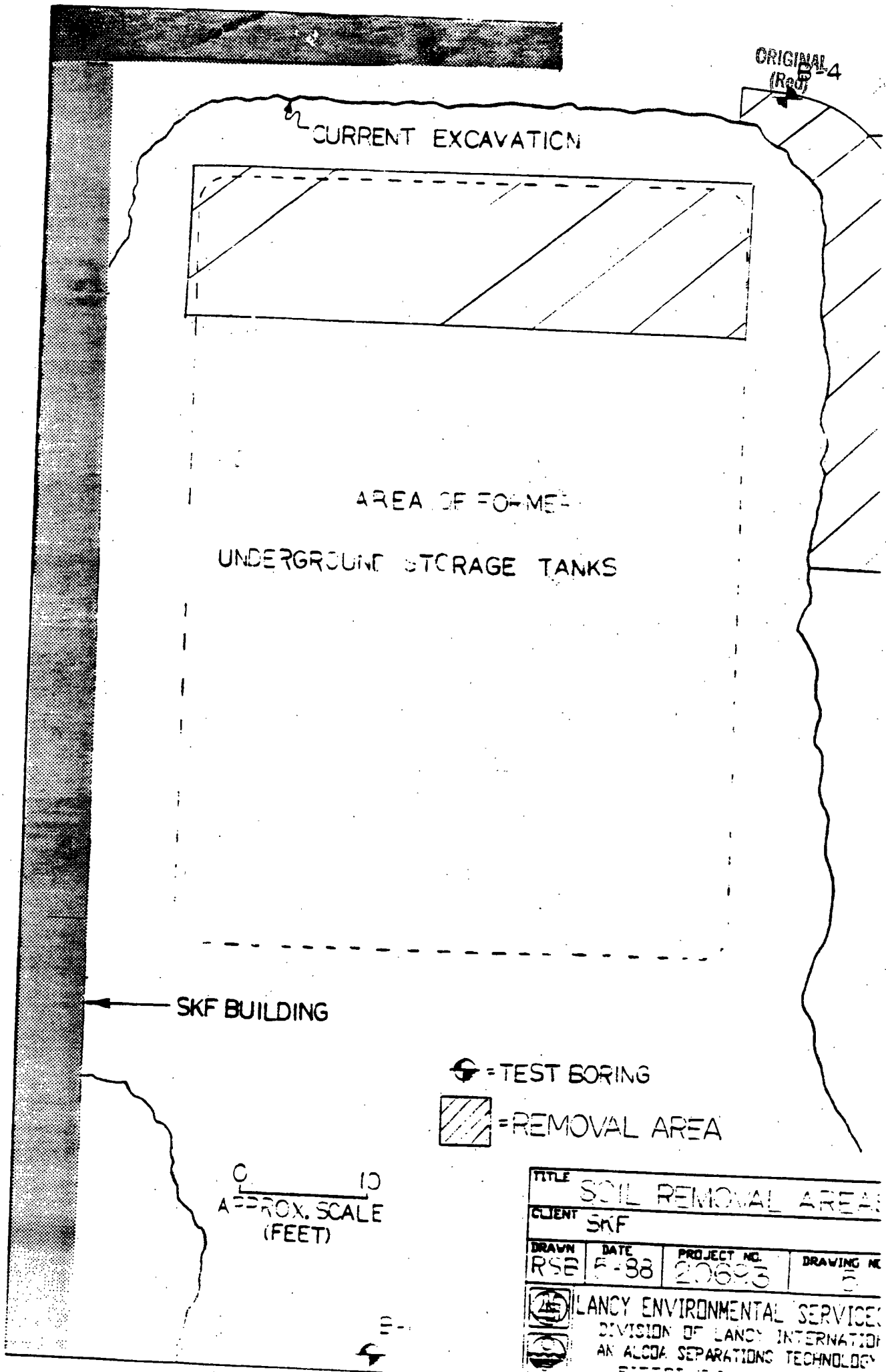
DATE RECEIVED: 4-6-88

REPORTER [signature]

PERIOD OF ANALYSIS: 4-27-88

DATE OF REPORT: 4-28-88

SHIP TO: LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527


ORIGINAL (Rod)
B-4
CURRENT EXCAVATION
AREA OF FORMER
UNDERGROUND STORAGE TANKS
SKF BUILDING
= TEST BORING
= REMOVAL AREA
0
10
APPROX. SCALE
(FEET)
B-
TITLE SOIL REMOVAL AREA
CLIENT SKF
DRAWN RSB
DATE 5-88
PROJECT NO. 20693
DRAWING NO. 5
LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL
AN ALCOA SEPARATIONS TECHNOLOGY

should describe in detail the procedures which will define the hydrology of the site to evaluate the quality of the aquifer and the need for ground water remediation. If remediation is deemed necessary, the hydrogeologic assessment will also provide the information to determine the appropriate approach to remediation.

If the tasks described above are implemented immediately, any necessary remediation could begin by late summer, 1988, if necessary.

ORIGINAL
(Red)

ATTACHMENT 1

BORING LOGS

Project # 20693
Client SKF
ORIGINAL (Red)

BORING/WELL NO. B1

Well Location Background location

Logged By	Ron Weaver	Driller	Bill Crawford - Continental
Safety Protection	D	Hole Diam.	4 1/4" HSA
Drilling Began	3/31/88	Casing Diam.	NA
Drilling Completed	3/31/88	Casing Depth/Mat'l.	NA
Well Const. Completed	NA	Stick-up	NA
Development Completed	NA	Well Diam./Mat'l.	NA
Drilling Depth	14'	Screened Interval	NA
Well Depth	NA	Sand Pack	NA
Depth to Competent Bedrock	NA	Bentonite Pellets	NA
Elev. Ground Surface	----	Backfill/Slurry	NA
SWL (Date)	----	Cement	0-14'

DEPTH	BLOWS	RECOVERY	SAMPLE NO.	SAMPLE DESCRIPTION (COLOR-MOISTURE-TEXTURE-SHAPE)	REMARKS
	2			0-0.67' Medium brown fine gravelly (rounded), silt	
	2			and clay. Dense. Very moist. Soft.	
	11	16"	1	0.67-6.25' Various shades of brown fine to medium	
2'	16			gravelly (rounded) clay. Some silt and	
	14			fine grained sand. Dense. Moist to	
	14	21"	2	very moist. Very firm.	
	14				
4'	20				
	24				
	21	21"	3		
	16				
6'	21			6.25-8' Mostly medium brown fine to very coarse	
	8			grained sand and fine to medium gravel	
	12	18"	4	(rounded). Much clay. Some silt. Dense.	
	12			Soft. Saturated.	
8'	20			8-12' Mostly medium brown fine to very coarse	
	10			grained sand and fine to medium gravel	
	14	12"	5	(rounded to subrounded). Loose. Soft.	
	17			Saturated.	
10'	20				
	7				
	14	19"	6		
	19				
12'	25			12-12.67' Light red-brown very fine to fine grained	
	19			sand. Dense. Soft. Saturated	
	15	12"	7	12.67-12.92' Various shades of brown fine gravelly	
	16			clay. Dense. Very firm. Moist.	
14'	18			Thinly layered.	
				12.92-14' Light gray claystone/shale. Moist.	
16'					

LANCY ENVIRONMENTAL SERVICES COMPANY
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company

Project # 20693
Client SKF

BORING/WELL NO. B2

ORIGINAL
(Red)

Well Location See Map
Logged By Ron Weaver
Safety Protection D
Drilling Began 3/30/88
Drilling Completed 3/31/88
Well Const. Completed NA
Development Completed NA
Drilling Depth 12.58'
Well Depth NA
Depth to Competent Bedrock NA
Elev. Ground Surface ----
SWL (Date) ----

Driller Bill Crawford - Continental
Hole Diam. 4 1/4" HSA
Casing Diam. NA
Casing Depth/Mat'l. NA
Stick-up NA
Well Diam./Mat'l. NA
Screened Interval NA
Sand Pack NA
Bentonite Pellets NA
Backfill/Slurry NA
Cement 0-12.58'

DEPTH	BLOWS	RECOVERY	SAMPLE NO.	SAMPLE DESCRIPTION (COLOR-MOISTURE-TEXTURE-SHAPE)	REMARKS
	1			0-2' Dark to medium brown fine to coarse grained sand,	
	1			clay, gravel, and silt. Dense. Soft. Moist.	
	3	9"	8		
2'	5			2-6' Dark to light brown fine to medium gravelly	
	3			(rounded) clay. Some silt and fine to	
	4	13"	9	medium grained sand. Dense. Soft. Moist	
	4			to very moist.	
4'	5				
	6				
	8	14"	10		
	7				
6'	10			6-10' Light brown to light red-brown clay and fine	
	10			gravel (rounded). Trace silt and fine	
	16	8"	11	grained sand. Dense to loose. Very moist	
	18			to saturated. Firm to soft.	
8'	18				
	10				
	5	9"	12		
	6				
10'	12			10-12' Medium brown fine to coarse grained sand and	
	12			fine gravel. Loose. Saturated.	
	7	8"	13		
	7				
12'	12			12-12.58' Light brown claystone/shale. Moist.	
	31				
	50/1"	6"	14		
14'					
16'					

LANCY ENVIRONMENTAL SERVICES COMPANY
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company

Project # 20693
Client SKF

ORIGINAL (Red)

BORING/WELL NO. B3

Well Location See Map
Logged By Ron Weaver
Safety Protection D
Drilling Began 3/31/88
Drilling Completed 3/31/88
Well Const. Completed NA
Development Completed NA
Drilling Depth 10.75'
Well Depth NA
Depth to Competent Bedrock 10.75'
Elev. Ground Surface ----
SWL (Date) ----

Driller Bill Crawford - Continental
Hole Diam. 4 1/4" HSA
Casing Diam. NA
Casing Depth/Mat'l. NA
Stick-up NA
Well Diam./Mat'l. NA
Screened Interval NA
Sand Pack NA
Bentonite Pellets NA
Backfill/Slurry NA
Cement 0-10.75'

DEPTH	BLOWS	RECOVERY	SAMPLE NO.	SAMPLE DESCRIPTION (COLOR-MOISTURE-TEXTURE-SHAPE)	REMARKS
	9			0-4' Various shades of brown fine gravelly (rounded) clay. Trace silt and fine grained sand. Dense. Moist. Very firm.	
	4				
	7	14"	15		
2'	14				
	9				
	10				
	14	12"	16		
4'	16			4-4.25' Medium brown very fine grained sandy silt. Trace clay. Dense. Soft. Very moist.	
	3			4.25-5.5' Light gray to red-gray clay. Some silt and very fine grained sand. Dense. Firm. Very moist.	
	4				
	6	17"	17		
6'	9				
	15			5.5-8' Various shades of brown fine to coarse gravelly (rounded) clay. Some silt and fine to medium grained sand. Dense. Soft. Very moist to wet.	
	13				May have trace of oil at 7.5'.
	16	24"	18		
8'	16				
	12			8-10.75' Light brown claystone/shale. Moist.	
	23	18"	19		
	30				
10'	50/4"				Auger refusal at 10.75'.
	23				
	50/3"	8"	20		
12'					
14'					
16'					

LANCY ENVIRONMENTAL SERVICES COMPANY
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company

Project # 20693
Client SKF
ORIGINAL (Red)

BORING/WELL NO. B4

Well Location See Map
Logged By Ron Weaver
Safety Protection D
Drilling Began 3/31/88
Drilling Completed 3/31/88
Well Const. Completed NA
Development Completed NA
Drilling Depth 12.25'
Well Depth NA
Depth to Competent Bedrock NA
Elev. Ground Surface ----
SWL (Date) ----

Driller Bill Crawford - Continental
Hole Diam. 4 1/4" HSA
Casing Diam. NA
Casing Depth/Mat'l. NA
Stick-up NA
Well Diam./Mat'l. NA
Screened Interval NA
Sand Pack NA
Bentonite Pellets NA
Backfill/Slurry NA
Cement 0-12.25'

DEPTH	BLOWS	RECOVERY	SAMPLE NO.	SAMPLE DESCRIPTION (COLOR-MOISTURE-TEXTURE-SHAPE)	REMARKS
	5			0-0.33' Medium gray silt and fine to medium gravel (angular). Dense. Moist. Firm.	
	5				
	14	15"	22	0.33-0.83' Light brown to light gray clay. Some silt. Trace sand. Dense. Moist. Very firm.	
2'	10				
	9				
	10			0.83-2' Like 0-0.33'	
	19	15"	23	2-5.75' Light gray to light brown clay. Trace silt and sand. Dense. Moist. Very firm.	
4'	24				
	16				
	24				
	26	24"	24	5.75-10' Dark brown, light brown and medium gray clay with shale fragments. Dense. Moist to wet. Very firm. Thinly layered.	
6'	33				
	5				
	20				
	22	20"	25		
8'	45				
	9				
	11				
	19	24"	26		
10'	44			10-12' Gray shale. Moist to saturated in areas. Trace coarse grained sand in some areas. Easily broken.	
	27				
	50/5"	14"	27		
	50/3"			12-12.25' Dark brown claystone/shale. Moist.	
12'					
	50/3"	3"	28		
14'					
16'					

LANCY ENVIRONMENTAL SERVICES COMPANY
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company

ORIGINAL
(Red)

ATTACHMENT 2

ANALYTICAL DATA - TEST BORINGS

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
P.O. Box 419
Pittsburgh, PA 15230-0419
Phone (412) 772-0044 • FAX (412) 772-0055

ORIGINAL (Red)

ANALYSIS REPORT

SKF USA Inc.
1000 Logan Boulevard
Altoona, PA 16602

Attention: Gerald Halbedl

Report Date 4/29/88 (Revised 5/4/88)

Collected 3/30,31/88 by RW
Received 4/6/88 by FM
Analyzed 4/6 - 4/27/88 by Staff
No. of Samples 12
Purchase Order # Verbal

Analysis of Soils

Project #20693

Boring #	B1	B1	B1	B2
Depth (from surface)	4-6'	8-10'	12-14'	4-6'
Lab Reference #	8040071	8040072	8040073	8040074
Parameter	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
pH (SU)	7.5	7.8	7.9	7.5
Oil and Grease	320	200	60	60
Arsenic	7.5	6.0	4.5	6.0
Barium	92	53	56	82
Cadmium	1.8	1.8	1.1	2.0
Chromium	23	19	14	23
Lead	20	23	18	30
Mercury	0.20	<0.04	<0.04	<0.04
Selenium	<1.0	<1.0	<1.0	<1.0
Silver	1.0	<1.0	1.0	<1.0

C. John Ritzert, Manager-Technical Operations

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An Alcoa Separations Technology Company
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Pittsburgh, PA 15230-0419
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ORIGINAL (Red)

ANALYSIS REPORT

SKF Industries, Inc.
Analysis of Soils

4/29/88 (Revised 5/4/88)
Verbal

Project #20693

Boring #	B1	B1	B1	B2
Depth (from surface)	4-6'	8-10'	12-14'	4-6'
Lab Reference #	8040071	8040072	8040073	8040074
	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)
Volatiles				
Acrolein	<30	<30	<30	<30
Acrylonitrile	<30	<30	<30	<30
Benzene	<6.0	<6.0	<6.0	<6.0
Bromodichloromethane	<6.0	<6.0	<6.0	<6.0
Bromoform	<6.0	<6.0	<6.0	<6.0
Bromomethane	<12	<12	<12	<12
2-Butanone	<12	<12	<12	<12
Carbon Disulfide	<6.0	<6.0	<6.0	<6.0
Carbon Tetrachloride	<6.0	<6.0	<6.0	<6.0
Chlorobenzene	<6.0	<6.0	<6.0	<6.0
Chloroethane	<12	<12	<12	<12
2-Chloroethylvinyl Ether	<6.0	<6.0	<6.0	<6.0
Chloroform	<6.0	<6.0	<6.0	<6.0
Chloromethane	<12	<12	<12	<12
Dibromochloromethane	<6.0	<6.0	<6.0	<6.0
1,1-Dichloroethane	<6.0	<6.0	<6.0	<6.0
1,2-Dichloroethane	<6.0	<6.0	<6.0	<6.0
1,1-Dichloroethene	<6.0	<6.0	<6.0	<6.0
(trans)-1,2-Dichloroethene	<6.0	<6.0	<6.0	<6.0
1,2-Dichloropropane	<6.0	<6.0	<6.0	<6.0
(cis)-1,3-Dichloropropene	<6.0	<6.0	<6.0	<6.0
(trans)-1,3-Dichloropropene	<6.0	<6.0	<6.0	<6.0
Ethylbenzene	<6.0	<6.0	<6.0	<6.0
2-Hexanone	<12	<12	<12	<12
Methylene Chloride	<6.0	<6.0	<6.0	<6.0
4-Methyl-2-Pentanone	<12	<12	<12	<12
Styrene	<6.0	<6.0	<6.0	<6.0
1,1,2,2-Tetrachloroethane	<6.0	<6.0	<6.0	<6.0
Tetrachloroethene	<6.0	<6.0	<6.0	<6.0
Toluene	<6.0	<6.0	<6.0	<6.0
1,1,1-Trichloroethane	<6.0	<6.0	<6.0	<6.0
1,1,2-Trichloroethane	<6.0	<6.0	<6.0	<6.0
Trichloroethene	<6.0	<6.0	<6.0	<6.0
Vinyl Acetate	<12	<12	<12	<12
Vinyl Chloride	<12	<12	<12	<12
Total Xylenes	<6.0	<6.0	<6.0	<6.0
Trichlorofluoromethane	<6.0	<6.0	<6.0	<6.0

C. John Ritzert, Manager-Technical Operations

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ORIGINAL (Red)

ANALYSIS REPORT

SKF Industries, Inc.
Analysis of Soils

4/29/88 (Revised 5/4/88)
Verbal

Project #20693

Boring #	B2	B2	B3	B3
Depth (from surface)	8-10'	12-14'	4-6'	6-8'
Lab Reference #	8040075	8040076	8040077	8040078
Parameter	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
pH (SU)	7.7	8.5	7.9	8.0
Oil and Grease	60	180	2700	2500
Arsenic	5.5	<1.0	2.0	12
Barium	74	81	68	51
Cadmium	1.4	0.7	0.8	2.1
Chromium	22	9.0	20	22
Lead	17	<10	14	24
Mercury	0.04	<0.04	<0.04	0.11
Selenium	<1.0	<1.0	<1.0	<1.0
Silver	<1.0	1.0	<1.0	<1.0

C. John Ritzert, Manager-Technical Operations

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ORIGINAL (Red)

ANALYSIS REPORT

SKF Industries, Inc.
Analysis of Soils

4/29/88 (Revised 5/4/88)
Verbal

Project #20693

Boring #	B2	B2	B3	B3
Depth (from surface)	8-10'	12-14'	4-6'	6-8'
Lab Reference #	8040075	8040076	8040077	8040078
	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)
Volatiles				
Acrolein	<30	<30	<85	<175
Acrylonitrile	<30	<30	<85	<175
Benzene	<6.0	<6.0	<17	<35
Bromodichloromethane	<6.0	<6.0	<17	<35
Bromoform	<6.0	<6.0	<17	<35
Bromomethane	<12	<12	<34	<70
2-Butanone	<12	<12	<34	<70
Carbon Disulfide	<6.0	<6.0	<17	<35
Carbon Tetrachloride	<6.0	<6.0	<17	<35
Chlorobenzene	<6.0	<6.0	<17	<35
Chloroethane	<12	<12	<34	<70
2-Chloroethylvinyl Ether	<6.0	<6.0	<17	<35
Chloroform	<6.0	<6.0	<17	<35
Chloromethane	<12	<12	<34	<70
Dibromochloromethane	<6.0	<6.0	<17	<35
1,1-Dichloroethane	<6.0	<6.0	<17	<35
1,2-Dichloroethane	<6.0	<6.0	<17	<35
1,1-Dichloroethene	<6.0	<6.0	<17	<35
(trans)-1,2-Dichloroethene	<6.0	<6.0	<17	<35
1,2-Dichloropropane	<6.0	<6.0	<17	<35
(cis)-1,3-Dichloropropene	<6.0	<6.0	<17	<35
(trans)-1,3-Dichloropropene	<6.0	<6.0	<17	<35
Ethylbenzene	<6.0	<6.0	<17	<35
2-Hexanone	<12	<12	<34	<70
Methylene Chloride	<6.0	<6.0	<17	<35
4-Methyl-2-Pentanone	<12	<12	<34	<70
Styrene	<6.0	<6.0	<17	<35
1,1,2,2-Tetrachloroethane	<6.0	<6.0	<17	<35
Tetrachloroethene	<6.0	<6.0	<17	<35
Toluene	<6.0	<6.0	<17	<35
1,1,1-Trichloroethane	<6.0	<6.0	<17	<35
1,1,2-Trichloroethane	<6.0	<6.0	<17	<35
Trichloroethene	<6.0	<6.0	<17	<35
Vinyl Acetate	<12	<12	<34	<70
Vinyl Chloride	<12	<12	<34	<70
Total Xylenes	<6.0	<6.0	<17	<35
Trichlorofluoromethane	<6.0	<6.0	<17	<35

C. John Ritzert, Manager-Technical Operations

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ORIGINAL (Red)

ANALYSIS REPORT

SKF Industries, Inc.
Analysis of Soils

4/29/88 (Revised 5/4/88)
Verbal

Project #20693

Boring #	B3	B4	B4	B4
Depth (from surface)	8-10'	4-6'	8-10'	12-14'
Lab Reference #	8040079	8040080	8040081	8040082
Parameter	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
pH (SU)	8.2	8.5	8.5	8.8
Oil and Grease	290	240	1400	310
Arsenic	1.0	4.5	2.5	4.0
Barium	48	0.45	40	44
Cadmium	1.2	0.8	0.06	0.07
Chromium	17	13	15	7.4
Lead	11	16	<10	15
Mercury	<0.04	0.04	<0.04	<0.04
Selenium	<1.0	<1.0	<1.0	<1.0
Silver	<1.0	1.0	1.0	2.0

C. John Ritzert, Manager-Technical Operations

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ORIGINAL (Red)

ANALYSIS REPORT

SKF Industries, Inc.
Analysis of Soils

4/29/88 (Revised 5/4/88)
Verbal

Project #20693

Boring #	B3	B4	B4	B4
Depth (from surface)	8-10'	4-6'	8-10'	12-14'
Lab Reference #	8040079	8040080	8040081	8040082
	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)
Volatiles				
Acrolein	<85	<30	<85	<30
Acrylonitrile	<85	<30	<85	<30
Benzene	<17	<6.0	<17	<6.0
Bromodichloromethane	<17	<6.0	<17	<6.0
Bromoform	<17	<6.0	<17	<6.0
Bromomethane	<34	<12	<34	<12
2-Butanone	<34	<12	<34	<12
Carbon Disulfide	<17	<6.0	<17	<6.0
Carbon Tetrachloride	<17	<6.0	<17	<6.0
Chlorobenzene	<17	<6.0	<17	<6.0
Chloroethane	<34	<12	<34	<12
2-Chloroethylvinyl Ether	<17	<6.0	<17	<6.0
Chloroform	<17	<6.0	<17	<6.0
Chloromethane	<34	<12	<34	<12
Dibromochloromethane	<17	<6.0	<17	<6.0
1,1-Dichloroethane	<17	<6.0	<17	<6.0
1,2-Dichloroethane	<17	<6.0	<17	<6.0
1,1-Dichloroethene	<17	<6.0	<17	<6.0
(trans)-1,2-Dichloroethene	<17	<6.0	<17	<6.0
1,2-Dichloropropane	<17	<6.0	<17	<6.0
(cis)-1,3-Dichloropropene	<17	<6.0	<17	<6.0
(trans)-1,3-Dichloropropene	<17	<6.0	<17	<6.0
Ethylbenzene	<17	<6.0	<17	<6.0
2-Hexanone	<34	<12	<34	<12
Methylene Chloride	<17	<6.0	<17	<6.0
4-Methyl-2-Pentanone	<34	<12	<34	<12
Styrene	<17	<6.0	<17	<6.0
1,1,2,2-Tetrachloroethane	<17	<6.0	<17	<6.0
Tetrachloroethene	<17	<6.0	<17	<6.0
Toluene	<17	<6.0	<17	<6.0
1,1,1-Trichloroethane	<17	<6.0	<17	<6.0
1,1,2-Trichloroethane	<17	<6.0	<17	<6.0
Trichloroethene	<17	<6.0	<17	<6.0
Vinyl Acetate	<34	<12	<34	<12
Vinyl Chloride	<34	<12	<34	<12
Total Xylenes	<17	<6.0	<17	<6.0
Trichlorofluoromethane	<17	<6.0	<17	<6.0

C. John Ritzert, Manager-Technical Operations

DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company

ORIGINAL (Red)

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company SKF
City/State
Contact
Telephone [redacted]

EPA ID No.
Field No.
Lab No. 9? 4?1??

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS.

SAMPLING DESCRIPTION:

Sample Location: B1 (See Map)
Boring/Well No.: B1 (4-6')
Depth of sample: 4-6'
Type of sampler: Trowel Split-Spoon (circled) Auger Other
Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): GRAVEL (circled) SAND (circled) SILT (circled) CLAY (circled) SOIL POWDER SLUDGE SLURRY OTHER
2. Size Distribution (percentage: 35 GRAVEL 15 SAND 50 FINES
3. Color (Munsell notation, if applicable): Shades of brown
4. Odor (circle one): NONE EARTHY ORGANIC OTHER
5. Moisture Content: DRY MOIST (circled) WET SATURATED
6. Density: LOOSE DENSE (circled)
7. Consistenty (if applicable): SOFT MEDIUM STIFF (circled) HARD
8. Structure: STRATIFIED BLOCKY NONSTRATIFIED (circled)
9. Local or Geoligic Name:
10. Other Information:

SAMPLE TAKEN BY: RCW
DATE: 3-31-88
WITNESS:
DATE SHIPPED:

FOR LAB USE ONLY

CUSTODIAN [signature]
REPORTER [signature]
DATE RECEIVED: 4-6-88
PERIOD OF ANALYSIS: 4-27-88
DATE OF REPORT: ?-22-88

SHIP TO: LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company

ORIGINAL (Red)

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company SKE
City/State
Contact
Telephone

EPA ID No.
Field No.
Lab No. 8C4C07-2

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS.

SAMPLING DESCRIPTION:

Sample Location: B1 (See Map)
Boring/Well No.: B1 (8-10')
Depth of sample: 8-10'
Type of sampler: Trowel (Split-Spoon) Auger Other
Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): (GRAVEL) (SAND) SILT CLAY SOIL POWDER SLUDGE SLURRY OTHER
2. Size Distribution (percentage: 40 GRAVEL 55 SAND 5 FINES
3. Color (Munsell notation, if applicable): Medium brown
4. Odor (circle one): NONE EARTHY ORGANIC OTHER
5. Moisture Content: DRY MOIST WET (SATURATED)
6. Density: (LOOSE) DENSE
7. Consistenty (if applicable): (SOFT) MEDIUM STIFF HARD
8. Structure: STRATIFIED BLOCKY (NONSTRATIFIED)
9. Local or Geoligic Name:
10. Other Information:

SAMPLE TAKEN BY: RCW DATE: 3-31-88
WITNESS: DATE SHIPPED:

FOR LAB USE ONLY

CUSTODIAN Frances B. McCloskey DATE RECEIVED: 4-6-88
REPORTER PERIOD OF ANALYSIS: 4-27-88
DATE OF REPORT: 5-22-88

SHIP TO:

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

ORIGINAL
(Red)

ATTACHMENT 3

ANALYTICAL DATA - PIT FLOOR SAMPLES

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
P.O. Box 419
Pittsburgh, PA 15230-0419
Phone (412) 772-0044 • FAX (412) 772-0055

ORIGINAL (Red)

ANALYSIS REPORT

SKF USA Inc.
1000 Logan Boulevard
Altoona, PA 16602

Attention: Gerald Halbedl

Report Date 5/12/88
Sample Date 4/25/88 by RB
Received 4/26/88 by FM
Analyzed 4/26 - 5/11/88 by Staff
No. of Samples 6
Purchase Order # Verbal

Analysis of Excavation Pit Floor Soil Samples Project #20693

Sample	Soil #1	Soil #2	Soil #3
Lab Reference #	8040806	8040807	8040808
Parameter	(mg/Kg)	(mg/Kg)	(mg/Kg)
pH (SU)	8.5	8.6	8.5
Oil and Grease	920	1100	14000
Arsenic	5.0	8.5	4.0
Barium	100	85	110
Cadmium	1.8	2.0	2.1
Chromium	14	23	18
Lead	<10	10	19
Mercury	0.04	0.05	<0.04
Selenium	<1.0	<1.0	<1.0
Silver	2.0	1.0	2.0
Volatiles	(ug/Kg)	(ug/Kg)	(ug/Kg)
Acrolein	<300	<60	<300
Acrylonitrile	<300	<60	<300
Benzene	<30	<6.0	<30
Bromodichloromethane	<30	<6.0	<30
Bromoform	<30	<6.0	<30
Bromomethane	<60	<12	<60
Carbon Disulfide	<30	<6.0	<30
Carbon Tetrachloride	<30	<6.0	<30
Chlorobenzene	<30	<6.0	<30
Chloroethane	<60	<12	<60
2-Chloroethylvinylether	<30	<6.0	<30
Chloroform	<30	<6.0	<30
Chloromethane	<60	<12	<60
Dibromochloromethane	<30	<6.0	<30
1,1-Dichloroethane	<30	<6.0	<30
1,2-Dichloroethane	<30	<6.0	<30

C. John Ritzert, Manager-Technical Operations

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ORIGINAL (Red)

ANALYSIS REPORT

SKF USA Inc.
Analysis of Excavation Pit Floor Soil Samples

5/12/88
Verbal

Project #20693

Sample	Soil #1	Soil #2	Soil #3
Lab Reference #	8040806	8040807	8040808
	(ug/Kg)	(ug/Kg)	(ug/Kg)
Volatiles (cont'd)			
1,1-Dichloroethene	<30	<6.0	<30
(trans)-1,2-Dichloroethene	<30	<6.0	<30
1,2-Dichloropropane	<30	<6.0	<30
(cis)-1,3-Dichloropropene	<30	<6.0	<30
(trans)-1,3-Dichloropropene	<30	<6.0	<30
Ethylbenzene	<30	<6.0	<30
Methylene Chloride	<30	<6.0	<30
Styrene	<30	<6.0	<30
1,1,2,2-Tetrachloroethane	<30	<6.0	<30
Tetrachloroethene	<30	<6.0	<30
Toluene	<30	<6.0	<30
1,1,1-Trichloroethane	<30	<6.0	<30
1,1,2-Trichloroethane	<30	<6.0	<30
Trichloroethene	<30	<6.0	<30
Vinyl Acetate	<60	<12	<60
Vinyl Chloride	<60	<12	<60
Total Xylenes	<30	<6.0	<30
1,1,1,2-Tetrachloroethane	<30	<6.0	<30
Trichlorofluoromethane	<30	<6.0	<30

C. John Ritzert, Manager-Technical Operations

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ORIGINAL (Red)

ANALYSIS REPORT

SKF USA Inc.
Analysis of Excavation Pit Floor Soil Samples

5/12/88
Verbal

Project #20693

Sample	Soil #4	Soil #5	Soil #6
Lab Reference #	8040809	8040810	8040811
Parameter	(mg/Kg)	(mg/Kg)	(mg/Kg)
pH (SU)	8.2	8.5	8.7
Oil and Grease	540	1000	3300
Arsenic	8.5	7.5	5.0
Barium	69	210	56
Cadmium	2.0	1.7	1.1
Chromium	21	19	9.6
Lead	<10	10	12
Mercury	<0.04	<0.04	0.04
Selenium	<1.0	<1.0	<1.0
Silver	1.0	1.0	2.0
Volatiles	(ug/Kg)	(ug/Kg)	(ug/Kg)
Acrolein	<300	<300	<300
Acrylonitrile	<300	<300	<300
Benzene	<30	<30	<30
Bromodichloromethane	<30	<30	<30
Bromoform	<30	<30	<30
Bromomethane	<60	<60	<60
Carbon Disulfide	<30	<30	<30
Carbon Tetrachloride	<30	<30	<30
Chlorobenzene	<30	<30	<30
Chloroethane	<60	<60	<60
2-Chloroethylvinylether	<30	<30	<30
Chloroform	<30	<30	<30
Chloromethane	<60	<60	<60
Dibromochloromethane	<30	<30	<30
1,1-Dichloroethane	<30	<30	<30
1,2-Dichloroethane	<30	<30	<30

C. John Ritzert, Manager-Technical Operations

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
P.O. Box 419
Pittsburgh, PA 15230-0419
Phone (412) 772-0044 • FAX (412) 772-0055

ORIGINAL (Red)

ANALYSIS REPORT

SKF USA Inc.
Analysis of Excavation Pit Floor Soil Samples

5/12/88
Verbal

Project #20693

Sample	Soil #4	Soil #5	Soil #6
Lab Reference #	8040809	8040810	8040811
Volatiles (cont'd)	(ug/Kg)	(ug/Kg)	(ug/Kg)
1,1-Dichloroethene	<30	<30	<30
(trans)-1,2-Dichloroethene	<30	<30	<30
1,2-Dichloropropane	<30	<30	<30
(cis)-1,3-Dichloropropene	<30	<30	<30
(trans)-1,3-Dichloropropene	<30	<30	<30
Ethylbenzene	<30	<30	<30
Methylene Chloride	<30	<30	<30
Styrene	<30	<30	<30
1,1,2,2-Tetrachloroethane	<30	<30	<30
Tetrachloroethene	<30	<30	<30
Toluene	<30	<30	<30
1,1,1-Trichloroethane	<30	<30	<30
1,1,2-Trichloroethane	<30	<30	<30
Trichloroethene	<30	<30	<30
Vinyl Acetate	<60	<60	<60
Vinyl Chloride	<60	<60	<60
Total Xylenes	<30	<30	<30
1,1,1,2-Tetrachloroethane	<30	<30	<30
Trichlorofluoromethane	<30	<30	<30

C. John Ritzert, Manager-Technical Operations

An Alcoa Separations Technology Company

HAZARDOUS WASTE/SOIL SAMPLING RECORD

ORIGINAL (Red)

Company SCP Pittsburg EPA ID No. _____

City/State _____ Field No. _____

Contact _____ Lab No. _____

Telephone _____

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS

SAMPLING DESCRIPTION:

Sample Location: Pit Floor Location 2

Boring/Well No.: _____

Depth of sample: ≈ 12.5' - 13.5' below Grade

Type of sampler: Trowel Split-Spoon (Auger) Other _____

Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): GRAVEL SAND SILT (CLAY) SOIL POWDER shale
   SLUDGE SLURRY OTHER _____
2. Size Distribution (percentage: _____ GRAVEL _____ SAND _____ FINES
3. Color (Munsell notation, if applicable): Brown / light grey
4. Odor (circle one): NONE EARTHY ORGANIC OTHER _____
5. Moisture Content: DRY (MOIST) WET SATURATED
6. Density: (LOOSE) DENSE
7. Consistenty (if applicable): SOFT (MEDIUM) STIFF HARD
8. Structure: STRATIFIED BLOCKY (NONSTRATIFIED)
9. Local or Geoligic Name: _____
10. Other Information: _____

SAMPLE TAKEN BY: RSB DATE: 4-25-88

WITNESS: _____ DATE SHIPPED: _____

FOR LAB USE ONLY

CUSTODIAN Frances P. McCarthy DATE RECEIVED: 4-26-88

REPORTER _____ PERIOD OF ANALYSIS: 5-_-88

DATE OF REPORT: 5-_-88

SHIP TO:

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company SCF Plant — EPA ID No. _____
City/State _____ — Field No. 1, 3
Contact _____ — Lab No. _____
Telephone _____

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS

SAMPLING DESCRIPTION:

Sample Location: Pt Floor location 3
Boring/Well No.: _____
Depth of sample: _____
Type of sampler: Trowel Split-Spoon (Auger) Other _____
Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): GRAVEL SAND SILT (CLAY - shale) SOIL POWDER SLUDGE SLURRY OTHER _____
2. Size Distribution (percentage: _____ GRAVEL _____ SAND _____ FINES
3. Color (Munsell notation, if applicable): Grey / stained
4. Odor (circle one): NONE EARTHY ORGANIC OTHER Smells of Oil
5. Moisture Content: DRY MOIST WET SATURATED
6. Density: (LOOSE) DENSE
7. Consistenty (if applicable): SOFT (MEDIUM) (STIFF) HARD
8. Structure: STRATIFIED BLOCKY (NONSTRATIFIED)
9. Local or Geoligic Name: _____
10. Other Information: _____

SAMPLE TAKEN BY: RSB — DATE: 4-25-88
WITNESS: _____ — DATE SHIPPED: _____

FOR LAB USE ONLY

CUSTODIAN Maureen P. Mahoney — DATE RECEIVED: 4-26-88
REPORTER _____ — PERIOD OF ANALYSIS: 5-11-88
DATE OF REPORT: 5-11-88

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An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company

ORIGINAL (Red)

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company SKF [illegible]
City/State
Contact
Telephone

EPA ID No. 8
Field No. [illegible] 4
Lab No. [illegible]

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS

SAMPLING DESCRIPTION:

Sample Location: Pit Floor Location 4
Boring/Well No.:
Depth of sample:
Type of sampler: Trowel Split-Spoon (Auger) Other
Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): GRAVEL SAND SILT (CLAY) - shale SOIL POWDER SLUDGE SLURRY OTHER
2. Size Distribution (percentage: ____ GRAVEL ____ SAND ____ FINES
3. Color (Munsell notation, if applicable): light brown / brown
4. Odor (circle one): NONE EARTHY ORGANIC OTHER
5. Moisture Content: DRY MOIST (WET) - (SATURATED)
6. Density: LOOSE DENSE
7. Consistenty (if applicable): SOFT (MEDIUM - STIFF) HARD
8. Structure: STRATIFIED BLOCKY (NONSTRATIFIED)
9. Local or Geoligic Name:
10. Other Information:

SAMPLE TAKEN BY: RSB DATE: 4-25-88
WITNESS: DATE SHIPPED:

FOR LAB USE ONLY

CUSTODIAN Frances P. McConaghy DATE RECEIVED: 4-26-88
REPORTER [signature] PERIOD OF ANALYSIS: 5-4-88
DATE OF REPORT: 5-4-88

SHIP TO: **LANCY ENVIRONMENTAL SERVICES**
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company SKF Alcoa — EPA ID No. _____
City/State _____ — Field No. [illegible]
Contact _____ — Lab No. [illegible]
Telephone _____

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTION

SAMPLING DESCRIPTION:

Sample Location: P-1 Floor Location No 5
Boring/Well No.: _____
Depth of sample: _____
Type of sampler: Trowel Split-Spoon (Auger) Other _____
Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): (GRAVEL) SAND SILT (CLAY) - shale SOIL POWDER SLUDGE SLURRY OTHER _____
2. Size Distribution (percentage: _____ GRAVEL _____ SAND _____ FINES
3. Color (Munsell notation, if applicable): light Brown / Brown
4. Odor (circle one): NONE EARTHY ORGANIC OTHER _____
5. Moisture Content: DRY MOIST (WET) (SATURATED)
6. Density: (LOOSE) DENSE
7. Consistenty (if applicable): SOFT (MEDIUM) STIFF HARD
8. Structure: STRATIFIED BLOCKY (NONSTRATIFIED)
9. Local or Geoligic Name: _____
10. Other Information: _____

SAMPLE TAKEN BY: RSB — DATE: 4-25-88
WITNESS: _____ — DATE SHIPPED: _____

FOR LAB USE ONLY

CUSTODIAN Frances J. McConaly — DATE RECEIVED: 4-26-88
REPORTER [illegible] — PERIOD OF ANALYSIS: [illegible]
DATE OF REPORT: [illegible]

SHIP TO:

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

An Alcoa Separations Technology Company

HAZARDOUS WASTE/SOIL SAMPLING RECORD

ORIGINAL (Red)

Company SCF Atlanta — EPA ID No. _____

City/State _____ — Field No. _____

Contact _____ — Lab No. _____

Telephone _____

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS

SAMPLING DESCRIPTION:

Sample Location: P.L Floor No 6

Boring/Well No.: _____

Depth of sample: _____

Type of sampler: Trowel Split-Spoon (Auger) Other _____

Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): (GRAVEL) SAND SILT (CLAY - shale) SOIL POWDER SLUDGE SLURRY OTHER _____
2. Size Distribution (percentage: _____ GRAVEL _____ SAND _____ FINES
3. Color (Munsell notation, if applicable): Brown / Grey / stained
4. Odor (circle one): NONE EARTHY ORGANIC OTHER Smells of oil
5. Moisture Content: (DRY) (MOIST) WET SATURATED
6. Density: (LOOSE) DENSE
7. Consistenty (if applicable): SOFT (MEDIUM) STIFF HARD
8. Structure: STRATIFIED BLOCKY (NONSTRATIFIED)
9. Local or Geoligic Name: _____
10. Other Information: _____

SAMPLE TAKEN BY: BB — DATE: 4-25-88

WITNESS: _____ — DATE SHIPPED: _____

FOR LAB USE ONLY

CUSTODIAN Linda P. McMurphy — DATE RECEIVED: 4-25-88

REPORTER John R Wickliff — PERIOD OF ANALYSIS: 5/1-5

DATE OF REPORT: 5/1-5

SHIP TO:

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

ORIGINAL
(Red)

ATTACHMENT 4

ANALYTICAL DATA - STOCKPILED SOILS COMPOSITE

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
P.O. Box 419
Pittsburgh, PA 15230-0419
Phone (412) 772-0044 • FAX (412) 772-0055

ORIGINAL (Red)

ANALYSIS REPORT

SKF Industries, Inc.
1000 Logan Boulevard
Altoona, PA 16602

Attention: Gerald Halbedl

Report Date 3/14/88

Collected 2/24/88 by RB
Received 2/26/88 by FM
Analyzed 2/26 - 3/11/88 by Staff
No. of Samples 1
Purchase Order # 607526

Module I Analysis of Waste

Project #20526

Sample	Split Composite
Lab Reference #	34265
Parameter	(mg/Kg)
pH (SU)	8.4
Corrosivity	Non-Corrosive
Ignitability	Non-Ignitable
Oil and Grease	2800
Reactivity (Cyanide)	<2.0
Reactivity (Sulfide)	20
Total Solids	84%
Volatile Solids	5.0%
BTU (BTU/lb)	<500
Cyanide, Total	<0.5
Arsenic	<0.002
Barium	70
Cadmium	1.1
Chromium	18
Copper	23
Lead	16
Mercury	<0.04
Molybdenum	15
Nickel	27
Selenium	<1.0
Silver	3.0
Zinc	60
Polychlorinated Biphenyls	<1.0

C. John Ritzert, Manager-Technical Operations

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
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Pittsburgh, PA 15230-0419
Phone (412) 772-0044 • FAX (412) 772-0055

ORIGINAL
(Red)

ANALYSIS REPORT

SKF Industries, Inc.
Module I Analysis of Waste

3/14/88
607526

Project #20526

Sample	Split Composite
Lab Reference #	34265
	(ug/L)
Volatile Organics	
Chloromethane	<10
Bromomethane	<10
Dichlorodifluoromethane	<10
Vinyl Chloride	<25
Chloroethane	<10
Methylene Chloride	<25
Trichlorofluoromethane	<10
1,1-Dichloroethylene	<10
1,1-Dichloroethane	<10
Trans-1,2-Dichloroethylene	<10
Chloroform	<10
1,2-Dichloroethane	<10
1,1,1-Trichloroethane	<10
Carbon Tetrachloride	<10
Bromodichloromethane	<10
1,2-Dichloropropane	<10
Cis-1,3-Dichloropropene	<10
Trichloroethylene	11
Chlorodibromomethane	<10
1,1,2-Trichloroethane	<10
Trans-1,3-Dichloropropene	<10
2-Chloroethylvinylether	<10
Bromoform	<25
1,1,2,2-Tetrachloroethane	<10
Tetrachloroethylene	<10
Chlorobenzene	<10
1,3-Dichlorobenzene	<25
1,2-Dichlorobenzene	<25
1,4-Dichlorobenzene	<25

C. John Ritzert, Manager-Technical Operations

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
P.O. Box 419
Pittsburgh, PA 15230-0419
Phone (412) 772-0044 • FAX (412) 772-0055

ORIGINAL (Red)

ANALYSIS REPORT

SKF Industries, Inc.
Module I Analysis of Waste

3/14/88
607526

Project #20526

EPTOX Leachate

Sample	Split Composite
Lab Reference #	34266
Parameter	(mg/L)
pH (SU)	8.0
Oil and Grease	<2.0
Ammonia-Nitrogen	<0.1
Phenol	0.022
Antimony	<0.2
Arsenic	<0.01
Barium	0.18
Cadmium	<0.004
Chromium	<0.006
Copper	<0.007
Lead	<0.1
Mercury	<0.002
Molybdenum	<0.01
Nickel	0.03
Selenium	<0.01
Silver	<0.01
Zinc	0.05

ASTM Leachate

Sample	Split Composite
Lab Reference #	34267
Parameter	(mg/L)
pH (SU)	8.1
Solids, Total Dissolved	70
Volatile Solids	60
Oxygen Demand, Chemical	26
Cyanide, Total	<0.01
Organic Carbon, Total	4.0
Organic Halogen, Total	<0.01
Chromium, Hexavalent	<0.01

C. John Ritzert, Manager-Technical Operations

DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company

ORIGINAL (Red)

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company _____ EPA ID No. _____

City/State _____ Field No. _____

Contact _____ Lab No. _____

Telephone _____

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS.

SAMPLING DESCRIPTION:

Sample Location: _____

Boring/Well No.: _____

Depth of sample: _____

Type of sampler: Trowel Split-Spoon Auger Other Shovel

Number of Grab Samples: 12

SAMPLE DESCRIPTION:

1. Typical Name (circle): GRAVEL SAND SILT (CLAY with loose shale) SOIL POWDER SLUDGE SLURRY OTHER _____
2. Size Distribution (percentage: _____ GRAVEL _____ SAND _____ FINES
3. Color (Munsell notation, if applicable): light to dark Brown
4. Odor (circle one): NONE (EARTHY) (ORGANIC) OTHER _____
5. Moisture Content: DRY (MOIST) WET SATURATED
6. Density: (LOOSE) DENSE
7. Consistenty (if applicable): SOFT MEDIUM (STIFF clays) HARD
8. Structure: STRATIFIED BLOCKY (NONSTRATIFIED)
9. Local or Geoligic Name: _____
10. Other Information: Soil - Composite taken from stockpiled truckloads at north end of Plant

SAMPLE TAKEN BY: R Bear DATE: 2-24-88

WITNESS: R. Wagner DATE SHIPPED: _____

FOR LAB USE ONLY

CUSTODIAN Frances P. McCarthy DATE RECEIVED: 2-26-88

REPORTER _____ PERIOD OF ANALYSIS: 3-11-88

DATE OF REPORT: 3-14-88

SHIP TO:

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

ORIGINAL
(Red)

APPENDIX C

SKF Bearing Industries Co.

ROLLING BEARINGS

Manufacturing

Altoona, PA
USA

January 14, 1991

Mr. Jeff Molnar
Regional Hydrogeologist
Pennsylvani Dept. of Environmental Resources
Bureau of Water Quality Management
One Araret Boulevard
Harrisburg, PA 17110

Re: Underground Storage Tank Closure Report

Dear Mr. Molnar,

Enclosed are three (3) copies of the Underground Storage Tank Closure Report prepared by Mountain Research, Inc. for SKF Industries, Inc., Altoona, PA. As is stated in the report, the next phase is to perform tests to define flow and water qualities specifics which will be incorporated into the proposal of the ground water system. The proposal for the ground water recovery plan will be submitted to PADER for approval prior to installation. SKF is still exploring ways to verify the possibilities of contaminents from sources other than the line leakage.

If you have any questions or additional information, please contact us.

Sincerely,

Gerald J. Halbedl

Gerald J. Halbedl

enc

cc: Kevin Svitana, MRI
Steve Kirchner, K of P
Dilip Pandya
Gary Pallas
File

MOUNTAIN RESEARCH, INC.
6th Avenue & 45th Street, Altoona, PA 16602 (814) 949-2034

ORIGINAL (Red)

UNDERGROUND STORAGE TANK CLOSURE REPORT

SKF INDUSTRIES, INC.

ALTOONA, PENNSYLVANIA

JANUARY 1991

PREPARED BY

MOUNTAIN RESEARCH, INC.

ALTOONA, PENNSYLVANIA

INTRODUCTION

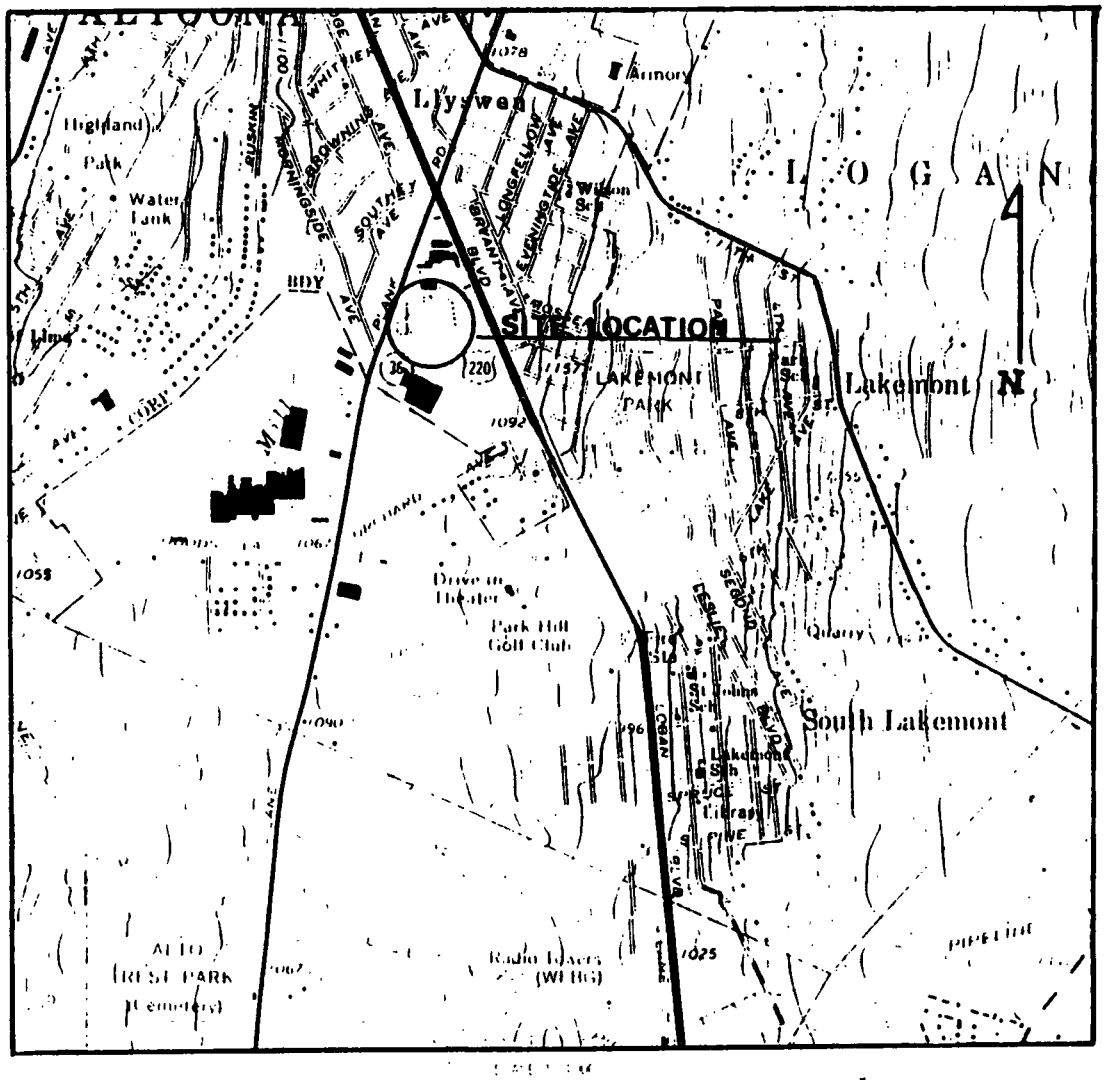
This report documents the removal of three (3) underground storage tanks (UST) at the SKF Industries, Inc. plant in Altoona, PA (Figure 1). The tanks (one [1] 6,000 gallon, one [1] 8,000 gallon and one [1] 12,000 gallon) were used to contain waste waters produced during manufacturing processes. Analysis of the tank contents indicated that the waste waters contained oils, cutting lubricants and metal cuttings. None of the contents were found to be hazardous. The tanks were scheduled for removal because of changes in the waste water handling system no longer required the use of the tanks for waste water containment.

Mr. Gerald Halbedl of SKF Industries, Inc. notified Mr. James Flesher, Director of the UST program for the Harrisburg Regional Office, Pennsylvania Department of Environmental Resources (PADER) on November 14, 1990 of SKF's intent to remove the tanks. Mr. Halbedl requested that the 30 day notice prior to proceeding be waived in order to initiate removal activities. Mr. Flesher approved the request and removal activities were scheduled to begin on November 19, 1990.

SITE GEOLOGY

The site occurs in a structurally complex area that represents the transition between the Valley and Ridge Province and Appalachian

ORIGINAL
(Red)



CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U S GEOLOGICAL SURVEY, WASHINGTON, D C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

HOLLIDAYSBURG, PA.

Figure 1
Geographic Site Location Map,
SKF, INC.

MOUNTAIN RESEARCH, INC.

6TH AVENUE & 45TH STREET

ALTOONA, PENNSYLVANIA 16602

Plateau. The bedrock units as mapped by Hoskins (1976) (Figure 2) indicate that the site is underlain by the Silurian Wills Creek, Formation. The Wills Creek is a shaly limestone that is mostly a competent unit that is well drained. The units are not prone to formation of solution cavities.

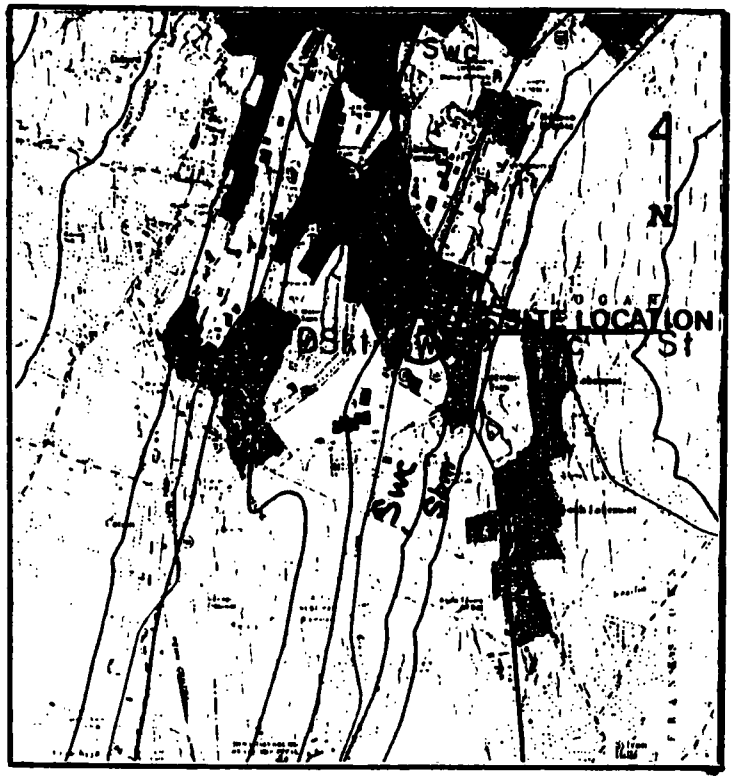
The units tend to be associated with topographic lows. The units are noted as having moderate permeabilities that are largely controlled by secondary permeabilities.

UST REMOVAL

Removal operations began on November 19, 1990. Concrete structures above the 6,000 gallon tank were removed and the top of the tank was exposed. On November 20, 1990, it was discovered that leakage had occurred along the fill line (Figure 3). Visible oil staining was the most obvious indicator of leakage, and a petroleum odor was noticeable. The soils were scanned with a Photoionization Detector (PID), but readings were less than 50 ppm. In order to continue with excavating activities, soils that were observed to be impacted were segregated and stockpiled. Soils were stockpiled on two double thickness of 8 mil PVC and covered with a single layer of 8 mil pvc. The stock piles were located on a paved parking area south east of the plant (Figure 1).

Mr. Steve Kirchner of SKF Corporate offices, King of Prussia, PA

ORIGINAL
(Red)



Compiled by D. M. HOSKINS, 1976

HOLLIDAYSBURG

DSkl Keyser and Tonoloway Fms undiv.	Swc Wills Creek Fm	Swc	Sc Clinton Gp
	Sbm Bloomsburg and Mifflintown Fms, undiv.		Sl Tuscarora Fm.

Figure 2
Geologic Site Location Map,
SKF, INC.

MOUNTAIN RESEARCH, INC.

6TH AVENUE & 45TH STREET

ALTOONA, PENNSYLVANIA 16602

ORIGINAL
(Red)

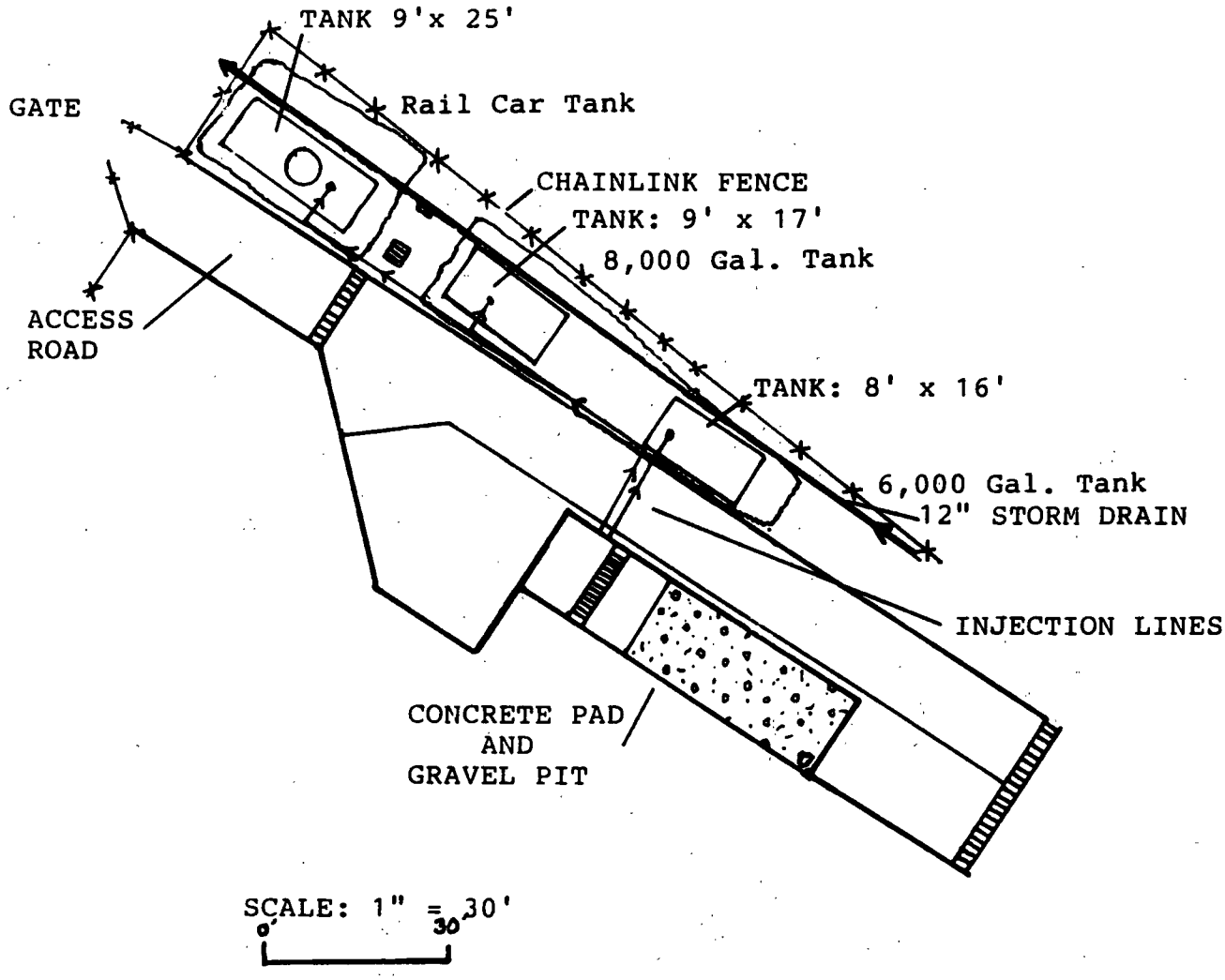


Figure 3

SKF INDUSTRIES, INC.
TANK LOCATIONS

MOUNTAIN RESEARCH, INC.

6TH AVENUE & 45TH STREET

ALTOONA, PENNSYLVANIA 16602

called Mr. Jeffrey Molnar of DER UST Program, Harrisburg Regional Office, PADER, to report the release on November 20, 1990. Mr. Kirchner requested the excavation continue under the provisions that impacted soils would be stockpiled and efforts to collect free product would be undertaken. The plan to continue to segregate soils and collect free product from the excavation was approved verbally by Mr. Molnar.

The soils around the tanks were brownish grey, moisture swelled clays. The mottling in the clays indicated that the water table in the area is shallow, and this was confirmed when ground water was encountered at a depth of 6' from grade. The ground waters that were encountered had oil films on the surface. Free product was collected using absorbent material. As excavation continued, it became apparent that leakage was primarily contained within the more permeable fill materials that surrounded the tank. The fine gravel or "dust" that comprised the tank fill had visibly higher concentrations of apparent oil compounds than the surrounding in place clays.

As the 8,000 gallon tank was excavated less released product was observed in the fill material than that of the 6,000 gallon tank. Once the southern wall alongside the two tanks was exposed, it was apparent that oil staining was most severe around the fill line. Inspection of the tanks following removal found no corrosion holes (holidays) which suggests that line leakage was responsible for the leaked product present in the tank backfill for the 8,000 and

6,000 gallon tanks. It also was observed that the more permeable fill materials around the fill lines and tanks channeled and contained the leakage. All soil and fill materials that had visible contamination were separated and stockpiled onsite.

The final tank to be excavated was a 12,000 gallon tank that was originally a railroad tank car. As the tank car was uncovered, free product and staining were present in the fill materials. The tank car had several holes that leaked oily waters into the fill surrounding the tank car. Ground water was encountered at approximately 5' from grade, and an oil film was present. Free product was collected using absorbents. All soils noted as containing oil staining and having higher than background PID readings were segregated and separately stock piled.

Following the removal of the three (3) tanks, they were purged with dry ice or bottled carbon dioxide. Following the purging of the tanks, entry ways were cleaned by the contractor and the tank walls were washed down with a high pressure washer. All wash waters and residual waste waters were pumped from the tanks by Wagner, Inc. of Duncansville, PA and transported to Safety Clean's water treatment facility in Buffalo, NY. Following the cleaning of each tank, MRI personnel inspected the tank for visual presence of residues and scanned the tank interiors for the presence of detectable volatile compounds. Each of the tanks were then transported to a scrap yard for processing.

SAMPLE ANALYSIS

In order to determine the characteristics of the stock piled contaminated soils, four (4) grab samples were collected and analyzed for volatile organic compounds, base neutrals, metals, PCBs, cyanides and sulfides. Analytical results for the soil samples are not complete. A water sample was collected from the 6,000 gallon and 8,000 gallon tank excavations to specifically identify any dissolved compounds that exist in the ground water. Laboratory results from this sample may be found in Appendix A. The aqueous sample contained 77 ppm of dissolved oil and measurable levels of 1,1-Dichloroethane and 1,1,1 Trichloroethane.

The solvents present in the ground water do not occur at levels that require remedial actions. The amount of free and dissolved oils present will require some type of remediation to reduce their concentrations.

RECOMMENDATIONS

Since it is apparent that a release of waste waters from the previously existing storage tanks has impacted both soils and ground water, it was proposed that a ground water recovery system be installed in the backfill of the tank excavations. The proposed system of pumping, treating and reinjecting ground water was

ORIGINAL
(Red)

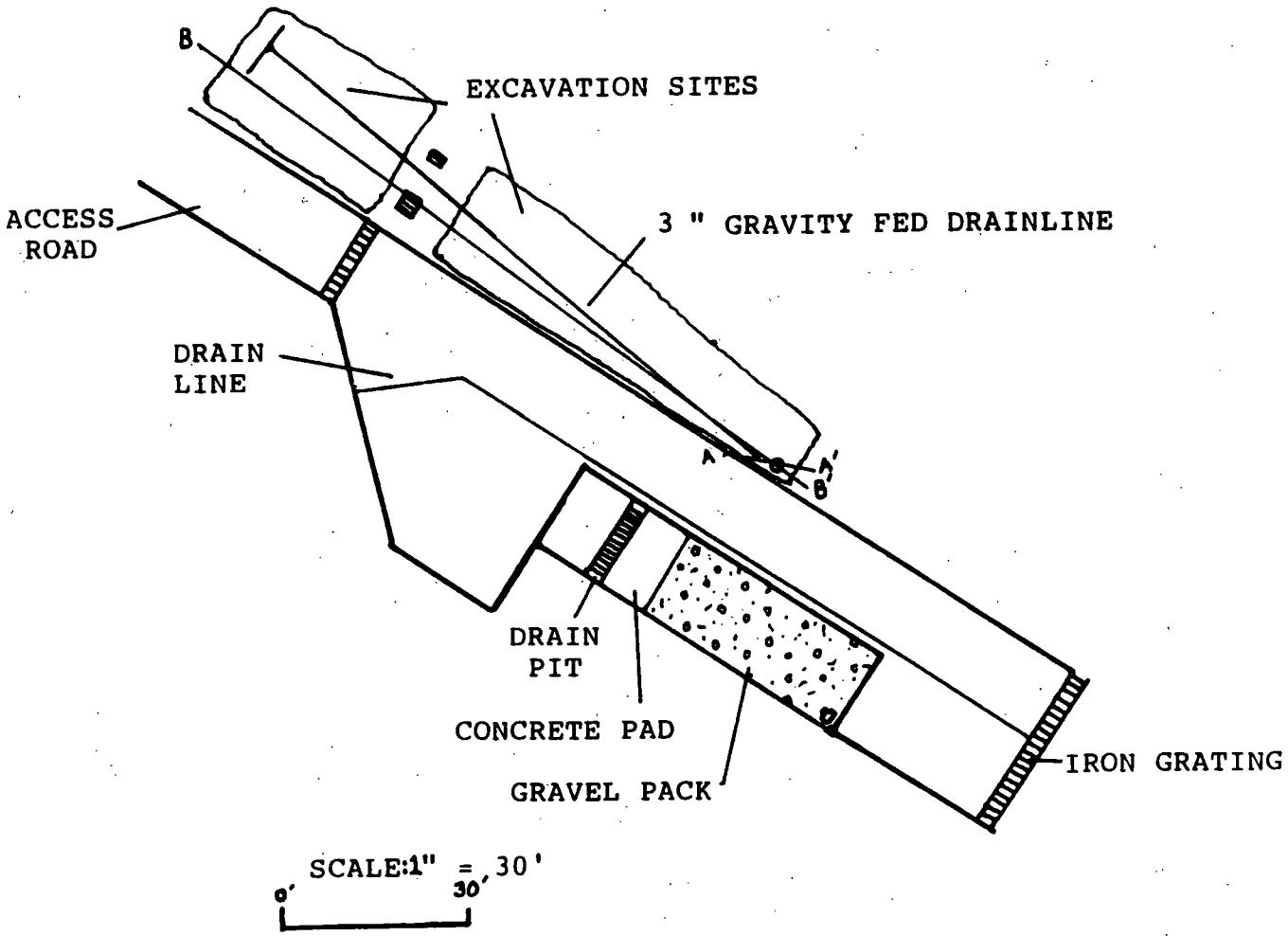


Figure 4

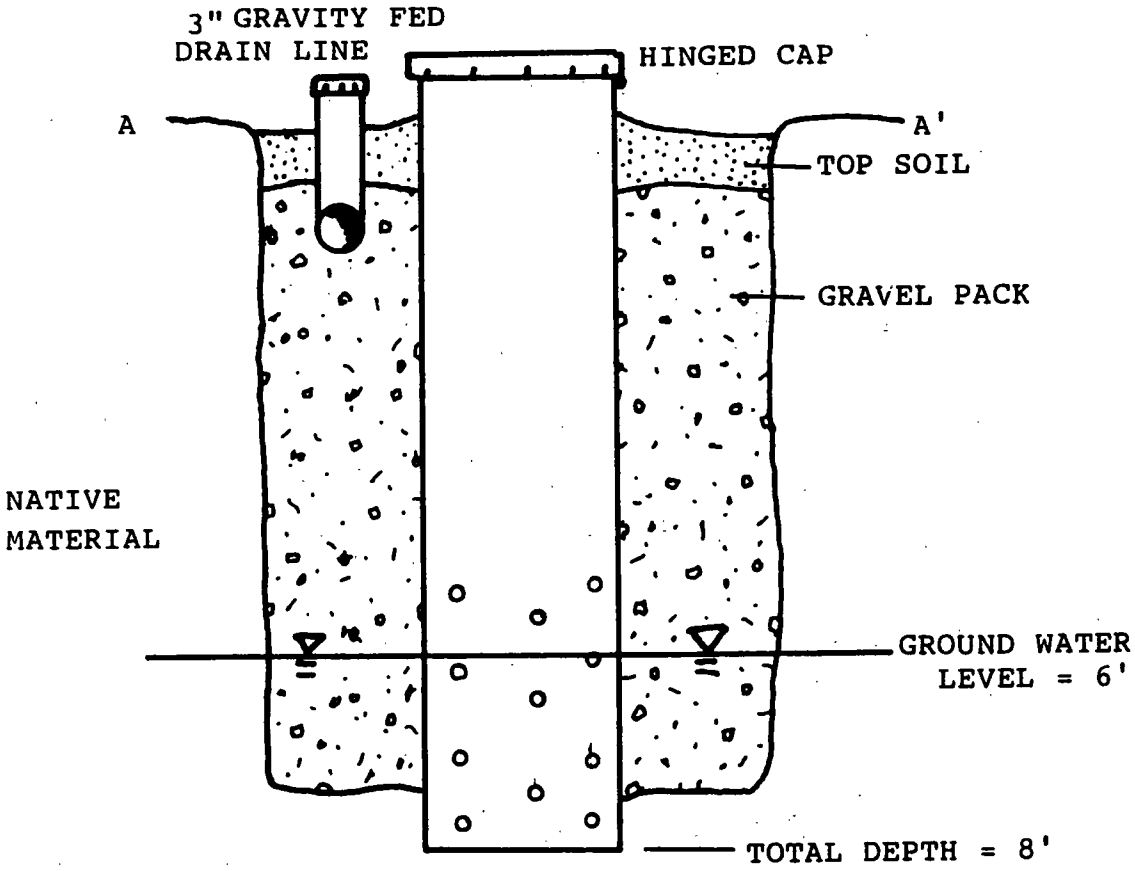
SKF INDUSTRIES, INC.
TANK EXCAVATION, BACKFILL, &
SUMP CONSTRUCTION

MOUNTAIN RESEARCH, INC.

6TH AVENUE & 45TH STREET

ALTOONA, PENNSYLVANIA 16602

ORIGINAL
(Red)



SCALE 1" = 2'

Figure 5A

SKF INDUSTRIES, INC.

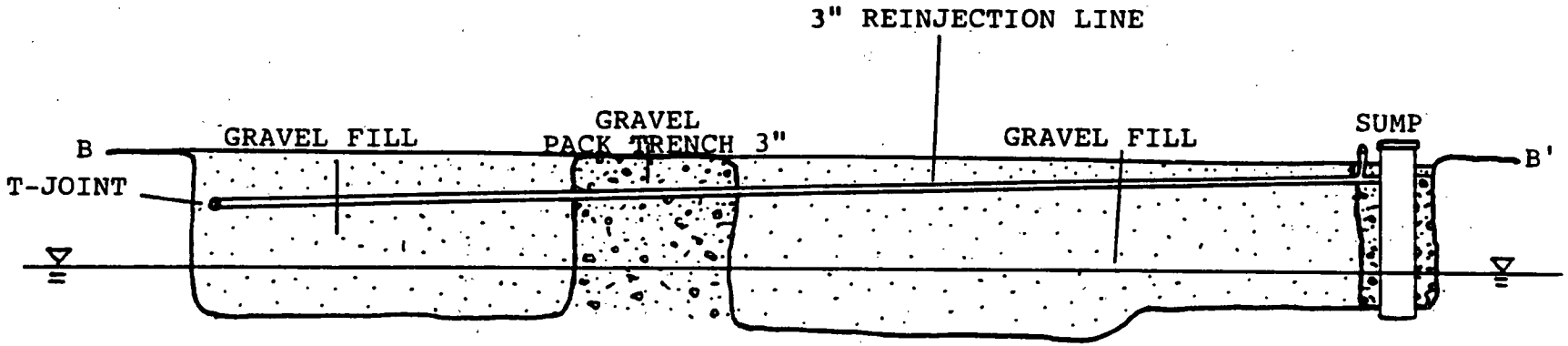
SUMP CONSTRUCTION DETAIL,

A- A'

MOUNTAIN RESEARCH, INC.

6TH AVENUE & 45TH STREET

ALTOONA, PENNSYLVANIA 16602



(NOTE: REINJECTION LINE SLOPES 18" FROM SUMP TO T-JOINT.)

NOT TO SCALE

Figure 5B

SKF INDUSTRIES, INC.
REINJECTION SYSTEM DETAIL
B-B

MOUNTAIN RESEARCH, INC.

6TH AVENUE & 45TH STREET

ALTOONA, PENNSYLVANIA 16602

verbally proposed to Mr. Jeffrey Molnar of DER UST Division on November 29, 1990. Mr. Molnar approved the conceptual design under the provisions that further tests to define flow specifics and water qualities specifics be completed.

The pumping and reinjection systems were constructed as shown on Figure 4 and details on Figure 5A and 5B. A recovery sump was placed on the eastern end of the tank excavations. A three (3) inch Schedule 40 PVC gravity return line was also placed that would allow for the gravity reinjection of treated waters thus creating a closed loop pumping and treatment system.

It is recommended that a pumping and treatment recovery system be initiated to collect leaked product at the site. Hydraulic evaluation of the aquifer along with a defining of the aquifer chemical characteristics should be defined and presented to the PADER for review prior to initiation. It may be possible that sources of contaminants other than those lost through line leakage may be present at the site. Additional studies to verify this possibility are being explored by SKF Industries.

APPENDIX A

LABORATORY ANALYSIS

ORIGINAL
(Red)

MOUNTAIN RESEARCH, INC.

6th Avenue & 45th Street, Altoona, PA 16602 (814) 949 2034

Report of Analysis

Client: Gerry Halbedl
1000 Logan Boulevard
Altoona, PA 16602

Location: SKF
Analysis: Excavation I
Tank Water
Matrix: Aqueous
Units: micrograms/liter
ug/l=ppb

Customer#: 1173
Project Manager: Kevin Svitana
Method: EPA 5030, 8010/8020

Sample ID		Water
Lab ID		Grab
Date Recieved		11655
		11/29/90
Parameter	Detection Limit	
Benzene	10	<10
Bromodichloromethane	5	<5
Bromoform	10	<10
Bromomethane	10	<10
Carbon Tetrachloride	5	<5
Chlorobenzene	5	<5
Chloroethane	10	<10
2-Chloroethylvinyl Ether	5	<5
Chloroform	10	<10
Chloromethane	10	<10
Dibromochloromethane	5	<5
1,2-Dichlorobenzene	5	<5
1,3-Dichlorobenzene	5	<5
1,4-dichlorobenzene	5	<5
1,1-Dichloroethane	5	70
1,2-Dichloroethane	5	<5
1,1-Dichloroethene	5	<5
trans-1,2-Dichloroethene	5	<5
1,2-Dichloropropane	5	<5
cis-1,3-Dichloropropene	5	<5
trans-1,3-Dichloropropene	5	<5
Ethyl Benzene	10	<10
Methylene Chloride	5	<5
1,1,2,2-Tetrachloroethane	5	<5
Tetrachloroethene	5	<5
Toluene	10	<10
1,1,1-Trichloroethane	5	138
1,1,2-Trichloroethane	5	<5
Trichloroethene	5	<5
Trichlorofluoromethane	5	<5
Vinyl Chloride	10	<10
Xylenes	10	<10

Reviewed and approved for Mountain Research, Inc. by _____

Date 11/1/90

ORIGINAL
(Red)

MOUNTAIN RESEARCH, INC.

6th Avenue & 45th Street, Altoona, PA 16602 (814) 949-2034

Report of Analysis Page 1 of 2

Client: Gerry Halbedl
SKF Industries
1000 Logan Boulevard
Altoona, PA 16602
Customer #: 1173
Project Manager: Kevin Svitana
Method: EPA 625

Location: SKF
Analysis: Excavation I
Tank Water
Matrix: Aqueous
Units: micrograms/liter
ug/l=ppb

Sample ID	Detection Limit	Water Grab
LAB ID		11655
Date Received		11/29/90
Parameter		
Acenaphthene	10	<10
Acenaphthylene	10	<10
Anthracene	10	<10
Benzidine	20	<20
Benzo(a)anthracene	10	<10
Benzo(b)fluoranthene	10	<10
Benzo(k)fluoranthene	10	<10
Benzo(a)pyrene	10	<10
Benzo(ghi)perylene	10	<10
Benzyl butyl phthalate	10	<10
Bis (2-chloroethyl)ether	10	<10
Bis(2-chloroethoxy)methane	10	<10
Bis(2-ethylhexyl)phthalate	10	<10
Bis(2-chloroisopropyl)ether	10	<10
4-Bromophenyl phenyl ether	10	<10
2-Chloronaphthalene	10	<10
4-Chlorophenyl phenyl ether	10	<10
Chrysene	10	<10
Dibenzo(a,h)anthracene	10	<10
Di-n-butylphthalate	10	<10
1,3-Dichlorobenzene	10	<10
1,2-Dichlorobenzene	10	<10
1,4-Dichlorobenzene	10	<10

Reviewed and approved for Mountain Research, Inc. by _____

Date 12/11/90

ORIGINAL
(Red)

MOUNTAIN RESEARCH, INC.

6th Avenue & 45th Street, Altoona, PA 16602 (814) 949-2034

Client: Gerry Halbedl
SKF Industries
1000 Logan Boulevard
Altoona, PA 16602
Customer #: 1173
Project Manager: Kevin Svitana
Method: EPA 625

Location: SKF
Analysis: Excavation I
Tank Water
Matrix: Aqueous
Units: micrograms/liter
ug/l=ppb

Sample ID	Detection Limit	Water Grab
LAB ID		11655
Date		11/29/90
Parameter		
3,3'-Dichlorobenzidine	20	<20
1,2-Diphenylhydrazine	20	<20
Diethyl phthalate	10	<10
Dimehyl phthalate	10	<10
2,4-Dinitrotoluene	10	<10
2,6-Dinitrotoluene	10	<10
Di-n-octylphthalate	10	<10
Fluoranthene	10	<10
Fluorene	10	<10
Hexachlorobenzene	10	<10
Hexachlorobutadiene	10	<10
Hexachloroethane	10	<10
Hexachloropentadiene	10	<10
Indeno(1,2,3-cd)pyrene	10	<10
Isophorone	10	<10
Naphthalene	10	<10
Nitrobenzene	10	<10
N-Nitrosodi-n-propylamine	10	<10
N-Nitrosodimethylamine	10	<10
N-Nitrosodiphenylamine	10	<10
Phenanthrene	10	<10
Pyrene	10	<10
1,2,4-Trichlorobenzene	10	<10

Based upon an NBS Mass Spectral Library Search, the following additional non-target compounds were identified.

Compound	Approx. Concentration*
Decane	200 ug/l
Undecane	50 ug/l
Methyltridecane	100 ug/l
Methylundecane	100 ug/l
Trimethyloctane	100 ug/l
Tetradecane	100 ug/l
Heptadecane	100 ug/l

* = Quantification based upon nearest internal standard.

Reviewed and approved for Mountain Research, Inc. by _____

Date 12/11/90

ORIGINAL
(Red)

MOUNTAIN RESEARCH, INC.

6th Avenue & 45th Street, Altoona, PA 16602 (814) 949-2034

Report of Analysis

Client: Gerry Halbedl
SKF Industries, Inc.
1000 Logan Boulevard
Altoona, PA 16602
Customer# 1173
Project Manager: Kevin Svitana
Method: EPA 7470, 6010

Location: SKF
Analysis: Excavation I
Tank Water
Matrix: Aqueous
Units: milligrams/liter
mg/l=ppm

Sample ID	Detection Limit	Water Grab
Lab ID		11655
Date Received		11/29/90
Parameter		
Aluminum	.10	2.30
Antimony	.05	<.05
Arsenic	.10	<.10
Barium	.01	.17
Beryllium	.001	<.001
Cadmium	.005	<.005
Calcium	1	95
Chromium	.02	<.02
Cobalt	.01	<.01
Copper	.005	.020
Iron	.02	6.37
Lead	.06	<.06
Magnesium	1	39
Manganese	.01	.23
Mercury	.001	<.001
Nickel	.03	.04
Potassium	1	32
Selenium	.15	<.15
Silver	.01	<.01
Sodium	1	20
Thallium	.10	<.10
Vanadium	.007	.011
Zinc	.01	.05

Reviewed and approved for Mountain Research, Inc. by TPeer

Date 12/17/90

ORIGINAL
(Red)

MOUNTAIN RESEARCH, INC.

6th Avenue & 45th Street, Altoona, PA 16602 (814) 949-2034

Report of Analysis

Client: Gerry Halbedl
SKF Industries, Inc.
1000 Logan Boulevard
Altoona, PA 16602
Customer# 1173
Project Manager: Kevin Svitana

Location: SKF
Analysis: Excavation I
Tank Water
Matrix: Aqueous
Units: milligrams/liter
mg/l=ppm

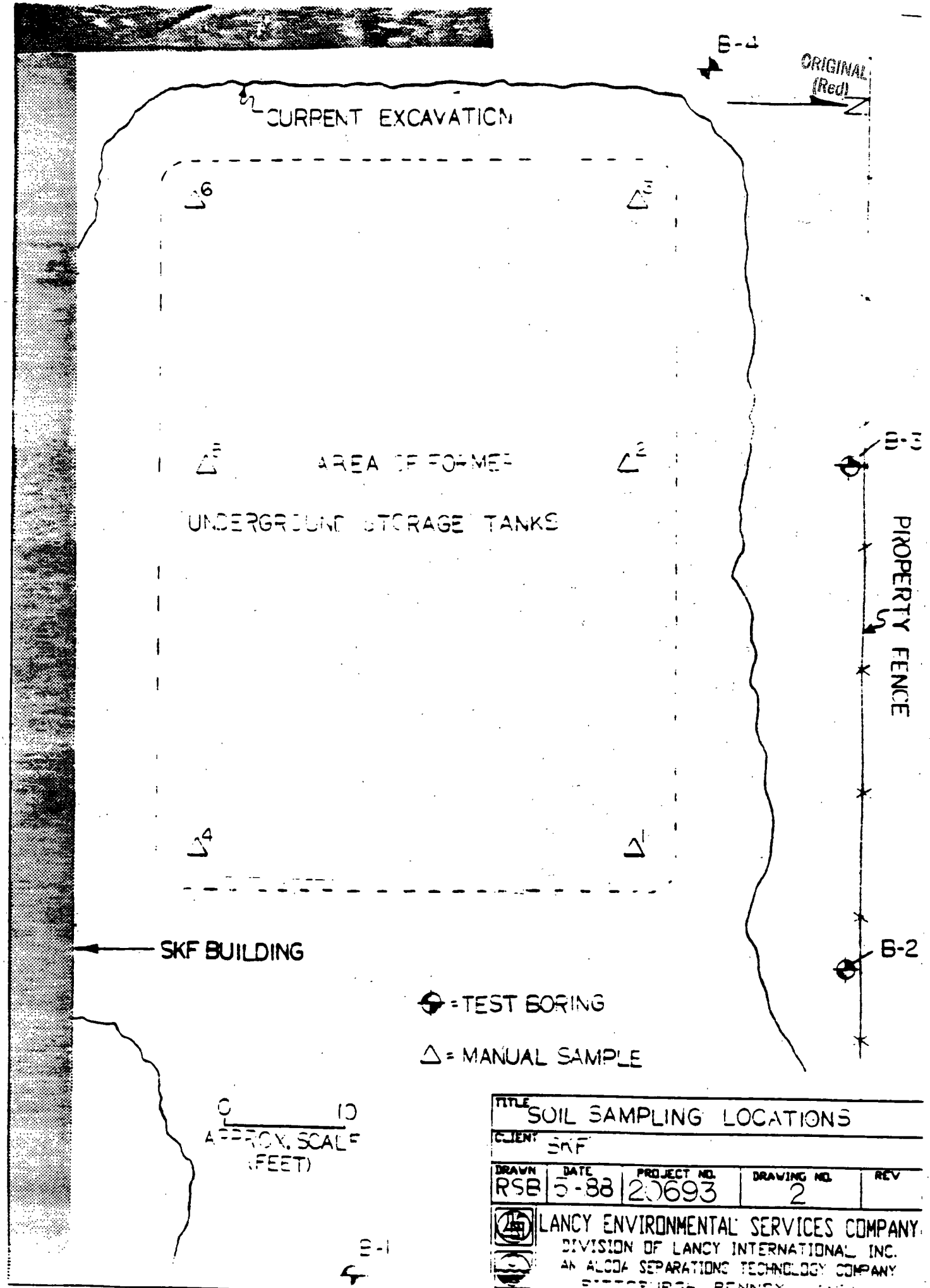
	Detection Limit	
Sample ID		Water Grab
Lab ID		11655
Date Received		11/29/90
Parameter		
TPH*	1	77
PCBs	.01	<.01

* Sample contained free product + aqueous layer. This result is for the dissolved TPH only.

Reviewed and approved for Mountain Research, Inc. by _____

Date 12/11/90

APPENDIX D


B-4
ORIGINAL
(Red)
CURRENT EXCAVATION
AREA OF FORMER
UNDERGROUND STORAGE TANKS
PROPERTY FENCE
B-3
B-2
SKF BUILDING
= TEST BORING
= MANUAL SAMPLE
0
10
APPROX. SCALE
(FEET)
B-1
TITLE SOIL SAMPLING LOCATIONS
CLIENT SKF
DRAWN RSB
DATE 5-88
PROJECT NO. 20693
DRAWING NO. 2
REV
LANCY ENVIRONMENTAL SERVICES COMPANY
DIVISION OF LANCY INTERNATIONAL INC.
AN ALCOA SEPARATIONS TECHNOLOGY COMPANY
PITTSBURGH PENNSYLVANIA

Project # 20693
Client CASKE (Red)

BORING/WELL NO. B1

Well Location Background location
Logged By Ron Weaver
Safety Protection D
Drilling Began 3/31/88
Drilling Completed 3/31/88
Well Const. Completed NA
Development Completed NA
Drilling Depth 14'
Well Depth NA
Depth to Competent Bedrock NA
Elev. Ground Surface ----
SWL (Date) ----

Driller Bill Crawford - Continental
Hole Diam. 4 1/4" HSA
Casing Diam. NA
Casing Depth/Mat'l. NA
Stick-up NA
Well Diam./Mat'l. NA
Screened Interval NA
Sand Pack NA
Bentonite Pellets NA
Backfill/Slurry NA
Cement 0-14'

DEPTH	BLOWS	RECOVERY	SAMPLE NO.	SAMPLE DESCRIPTION (COLOR-MOISTURE-TEXTURE-SHAPE)	REMARKS
	2			0-0.67' Medium brown fine gravelly (rounded), silt and clay. Dense. Very moist. Soft.	
	2				
	11	16"	1	0.67-6.25' Various shades of brown fine to medium gravelly (rounded) clay. Some silt and fine grained sand. Dense. Moist to very moist. Very firm.	
2'	16				
	14				
	14	21"	2		
	14				
4'	20				
	24				
	21	21"	3		
	16				
6'	21			6.25-8' Mostly medium brown fine to very coarse grained sand and fine to medium gravel (rounded). Much clay. Some silt. Dense. Soft. Saturated.	
	8				
	12	18"	4		
	12				
8'	20			8-12' Mostly medium brown fine to very coarse grained sand and fine to medium gravel (rounded to subrounded). Loose. Soft. Saturated.	
	10				
	14	12"	5		
	17				
10'	20				
	7				
	14	19"	6		
	19				
12'	25			12-12.67' Light red-brown very fine to fine grained sand. Dense. Soft. Saturated	
	19				
	15	12"	7	12.67-12.92' Various shades of brown fine gravelly clay. Dense. Very firm. Moist. Thinly layered.	
	16				
14'	18			12.92-14' Light gray claystone/shale. Moist.	
16'					

Project # 20693
Client SKF

ORIGINAL (Red)

BORING/WELL NO. B2

Well Location See Map
Logged By Ron Weaver
Safety Protection D
Drilling Began 3/30/88
Drilling Completed 3/31/88
Well Const. Completed NA
Development Completed NA
Drilling Depth 12.58'
Well Depth NA
Depth to Competent Bedrock NA
Elev. Ground Surface ——
SWL (Date) ——

Driller Bill Crawford - Continental
Hole Diam. 4 1/4" HSA
Casing Diam. NA
Casing Depth/Mat'l. NA
Stick-up NA
Well Diam./Mat'l. NA
Screened Interval NA
Sand Pack NA
Bentonite Pellets NA
Backfill/Slurry NA
Cement 0-12.58'

DEPTH	BLOWS	RECOVERY	SAMPLE NO.	SAMPLE DESCRIPTION (COLOR-MOISTURE-TEXTURE-SHAPE)	REMARKS
	1 1 3	9"	8	0-2' Dark to medium brown fine to coarse grained sand, clay, gravel, and silt. Dense. Soft. Moist.	
2'	5 3 4	13"	9	2-6' Dark to light brown fine to medium gravelly (rounded) clay. Some silt and fine to medium grained sand. Dense. Soft. Moist to very moist.	
4'	4 5 6				
	8 7	14"	10		
6'	10 10			6-10' Light brown to light red-brown clay and fine gravel (rounded). Trace silt and fine grained sand. Dense to loose. Very moist to saturated. Firm to soft.	
	16 18	8"	11		
8'	18 10				
	5 6	9"	12		
10'	12 12			10-12' Medium brown fine to coarse grained sand and fine gravel. Loose. Saturated.	
	7 7	8"	13		
12'	12 31			12-12.58' Light brown claystone/shale. Moist.	
	50/1"	6"	14		
14'					
16'					

Project # 20693
Client SKF
ORIGINAL (Red)

BORING/WELL NO. B3

Well Location See Map
Logged By Ron Weaver
Safety Protection D
Drilling Began 3/31/88
Drilling Completed 3/31/88
Well Const. Completed NA
Development Completed NA
Drilling Depth 10.75'
Well Depth NA
Depth to Competent Bedrock 10.75'
Elev. Ground Surface ----
SWL (Date) ----

Driller Bill Crawford - Continental
Hole Diam. 4 1/4" HSA
Casing Diam. NA
Casing Depth/Mat'l. NA
Stick-up NA
Well Diam./Mat'l. NA
Screened Interval NA
Sand Pack NA
Bentonite Pellets NA
Backfill/Slurry NA
Cement 0-10.75'

DEPTH	BLOWS	RECOVERY	SAMPLE NO.	SAMPLE DESCRIPTION (COLOR-MOISTURE-TEXTURE-SHAPE)	REMARKS
	9 4 7	14"	15	0-4' Various shades of brown fine gravelly (rounded) clay. Trace silt and fine grained sand. Dense. Moist. Very firm.	
2'	14 9 10				
	14	12"	16		
4'	16 3 4			4-4.25' Medium brown very fine grained sandy silt. Trace clay. Dense. Soft. Very moist. 4.25-5.5' Light gray to red-gray clay. Some silt and very fine grained sand. Dense. Firm. Very moist.	
	6	17"	17		
6'	9 15 13			5.5-8' Various shades of brown fine to coarse gravelly (rounded) clay. Some silt and fine to medium grained sand. Dense. Soft. Very moist to wet.	
	16	24"	18		May have trace of oil at 7.5'.
8'	16 12			8-10.75' Light brown claystone/shale. Moist.	
	23	18"	19		
10'	30 50/4"				
	23				Auger refusal at 10.75'.
	50/3"	8"	20		
12'					
14'					
16'					

LANCY ENVIRONMENTAL SERVICES COMPANY
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company

Project # 20693
Client SKF
ORIGINAL (Red)

BORING/WELL NO. B4

Well Location See Map
Logged By Ron Weaver
Safety Protection D
Drilling Began 3/31/88
Drilling Completed 3/31/88
Well Const. Completed NA
Development Completed NA
Drilling Depth 12.25'
Well Depth NA
Depth to Competent Bedrock NA
Elev. Ground Surface ---
SWL (Date) ---

Driller Bill Crawford - Continental
Hole Diam. 4 1/4" HSA
Casing Diam. NA
Casing Depth/Mat'l. NA
Stick-up NA
Well Diam./Mat'l. NA
Screened Interval NA
Sand Pack NA
Bentonite Pellets NA
Backfill/Slurry NA
Cement 0-12.25'

DEPTH	BLOWS	RECOVERY	SAMPLE NO.	SAMPLE DESCRIPTION (COLOR-MOISTURE-TEXTURE-SHAPE)	REMARKS
	5			0-0.33' Medium gray silt and fine to medium gravel (angular). Dense. Moist. Firm.	
	5				
	14	15"	22	0.33-0.83' Light brown to light gray clay. Some silt. Trace sand. Dense. Moist. Very firm.	
2'	10				
	9				
	10			0.83-2' Like 0-0.33'	
	19	15"	23	2-5.75' Light gray to light brown clay. Trace silt and sand. Dense. Moist. Very firm.	
4'	24				
	16				
	24				
	26	24"	24	5.75-10' Dark brown, light brown and medium gray clay with shale fragments. Dense. Moist to wet. Very firm. Thinly layered.	
6'	33				
	5				
	20				
	22	20"	25		
8'	45				
	9				
	11				
	19	24"	26		
10'	44			10-12' Gray shale. Moist to saturated in areas. Trace coarse grained sand in some areas. Easily broken.	---
	27				
	50/5"	14"	27		
	50/3"			12-12.25' Dark brown claystone/shale. Moist.	
12'					
	50/3"	3"	28		
14'					
16'					

APPENDIX E

DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company

HAZARDOUS WASTE/SOIL SAMPLING RECORD

ORIGINAL (Red)

Company SKE
City/State
Contact
Telephone

EPA ID No.
Field No.
Lab No. 8[illegible]

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS.

SAMPLING DESCRIPTION:

Sample Location: B1 (See map)
Boring/Well No.: B1 (4-6')
Depth of sample: 4-6'
Type of sampler: Trowel (Split-Spoon) Auger Other
Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): (GRAVEL) (SAND) (SILT) (CLAY) SOIL POWDER SLUDGE SLURRY OTHER
2. Size Distribution (percentage: 35 GRAVEL 15 SAND 50 FINES
3. Color (Munsell notation, if applicable): Shades of brown
4. Odor (circle one): NONE EARTHY ORGANIC OTHER
5. Moisture Content: DRY (MOIST) WET SATURATED
6. Density: LOOSE (DENSE)
7. Consistency (if applicable): SOFT MEDIUM (STIFF) HARD
8. Structure: STRATIFIED BLOCKY (NONSTRATIFIED)
9. Local or Geoligic Name:
10. Other Information:

SAMPLE TAKEN BY: RCW DATE: 3-31-88
WITNESS: DATE SHIPPED:

FOR LAB USE ONLY

CUSTODIAN Deanna A. McCarthy DATE RECEIVED: 4-6-88
REPORTER [illegible] PERIOD OF ANALYSIS: 4-27-88
DATE OF REPORT: 5-27-88

SHIP TO:
LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company

ORIGINAL (Red)

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company SKE
City/State
Contact
Telephone

EPA ID No.
Field No.
Lab No. [illegible]

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS.

SAMPLING DESCRIPTION:

Sample Location: B1 (See Map)
Boring/Well No.: B1 (8-10')
Depth of sample: 8-10'
Type of sampler: Trowel (Split-Spoon) Auger Other
Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): (GRAVEL) (SAND) SILT CLAY SOIL POWDER SLUDGE SLURRY OTHER
2. Size Distribution (percentage: 40 GRAVEL 55 SAND 5 FINES
3. Color (Munsell notation, if applicable): Medium brown
4. Odor (circle one): NONE EARTHY ORGANIC OTHER
5. Moisture Content: DRY MOIST WET (SATURATED)
6. Density: (LOOSE) DENSE
7. Consistenty (if applicable): (SOFT) MEDIUM STIFF HARD
8. Structure: STRATIFIED BLOCKY (NONSTRATIFIED)
9. Local or Geoligic Name:
10. Other Information:

SAMPLE TAKEN BY: RCW DATE: 3-31-88
WITNESS: DATE SHIPPED:

FOR LAB USE ONLY

CUSTODIAN Eleanor B. McCauley DATE RECEIVED: 4-6-88
REPORTER [illegible] PERIOD OF ANALYSIS: [illegible]
DATE OF REPORT: [illegible]

SHIP TO:
LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company SEC
City/State
Contact
Telephone

EPA ID No.
Field No.
Lab No. F-411-22

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS

SAMPLING DESCRIPTION:

Sample Location: B1 (See Map)
Boring/Well No.: B1 (12-14')
Depth of sample: 12-14'
Type of sampler: Trowel (Split-Spoon) Auger Other
Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): (GRAVEL) (SAND) SILT (CLAY) SOIL POWDER SLUDGE SLURRY OTHER
2. Size Distribution (percentage: 15 GRAVEL 70 SAND 15 FINES
3. Color (Munsell notation, if applicable): Shades of brown to light gray
4. Odor (circle one): NONE EARTHY ORGANIC OTHER
5. Moisture Content: DRY (MOIST) WET (SATURATED)
6. Density: LOOSE (DENSE)
7. Consistenty (if applicable): (SOFT) MEDIUM (STIFF) HARD
8. Structure: (STRATIFIED) BLOCKY (NONSTRATIFIED)
9. Local or Geoligic Name:
10. Other Information:

SAMPLE TAKEN BY: RCW DATE: 3-31-88
WITNESS: DATE SHIPPED:

FOR LAB USE ONLY

CUSTODIAN Frances P. McCauley DATE RECEIVED: 4-6-88
REPORTER PERIOD OF ANALYSIS: 4-22-88
DATE OF REPORT: 6-22-88

SHIP TO:

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company

ORIGINAL (Red)

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company: SKF | EPA ID No.:
City/State: | Field No.:
Contact: | Lab No.: [illegible]
Telephone: [redacted]

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS.

SAMPLING DESCRIPTION:

Sample Location: B2 (See Map)
Boring/Well No.: B2 (0-6')
Depth of sample: 4-6'
Type of sampler: Trowel **Split-Spoon** Auger Other ______
Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): **GRAVEL** **SAND** **SILT** **CLAY** SOIL POWDER SLUDGE SLURRY OTHER Fill
2. Size Distribution (percentage: 30 GRAVEL 15 SAND 55 FINES
3. Color (Munsell notation, if applicable): Light brown
4. Odor (circle one): NONE EARTHY ORGANIC OTHER [illegible]
5. Moisture Content: DRY **MOIST** WET SATURATED
6. Density: LOOSE **DENSE**
7. Consistenty (if applicable): **SOFT** MEDIUM STIFF HARD
8. Structure: STRATIFIED BLOCKY **NONSTRATIFIED**
9. Local or Geoligic Name:
10. Other Information:

SAMPLE TAKEN BY: RCW | DATE: 3-30-88
WITNESS: | DATE SHIPPED:

FOR LAB USE ONLY

CUSTODIAN: [illegible signature] | DATE RECEIVED: 4-6-88
REPORTER: [illegible signature] | PERIOD OF ANALYSIS: 4-22-88
 | DATE OF REPORT: 4-29-88

SHIP TO: LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company

ORIGINAL (Red)

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company: SKF

City/State: ______

Contact: ______

Telephone: ______

EPA ID No. ______

Field No. ______

Lab No. [illegible]

<u>CAUTION:</u> WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS.

SAMPLING DESCRIPTION:

Sample Location: B2 (See Map)

Boring/Well No.: B2 (8-10')

Depth of sample: 8-10'

Type of sampler: Trowel **(Split-Spoon)** Auger Other ______

Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): **(GRAVEL)** SAND SILT **(CLAY)** SOIL POWDER SLUDGE SLURRY OTHER ______
2. Size Distribution (percentage: 45 GRAVEL 5 SAND 50 FINES
3. Color (Munsell notation, if applicable): Light red-brown
4. Odor (circle one): NONE EARTHY ORGANIC OTHER ______
5. Moisture Content: DRY MOIST WET **(SATURATED)**
6. Density: **(LOOSE)** DENSE
7. Consistenty (if applicable): **(SOFT)** MEDIUM STIFF HARD
8. Structure: STRATIFIED BLOCKY **(NONSTRATIFIED)**
9. Local or Geoligic Name: ______
10. Other Information: ______

SAMPLE TAKEN BY: RCW DATE: 3-31-88

WITNESS: ______ DATE SHIPPED: ______

<u>FOR LAB USE ONLY</u>

CUSTODIAN: Frances J. McCloskey

REPORTER: [illegible signature]

DATE RECEIVED: 4-6-88

PERIOD OF ANALYSIS: 4-27-88

DATE OF REPORT: 5-28-88

SHIP TO: LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company

ORIGINAL (Red)

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company CKE
City/State
Contact
Telephone

EPA ID No.
Field No.
Lab No.

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS.

SAMPLING DESCRIPTION:

Sample Location: B2 (See attached)
Boring/Well No.: B2 (12-14')
Depth of sample: 12-14'
Type of sampler: Trowel (Split-Spoon) Auger Other
Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): GRAVEL SAND SILT CLAY SOIL POWDER SLUDGE SLURRY OTHER Clay Lens
2. Size Distribution (percentage: GRAVEL SAND FINES
3. Color (Munsell notation, if applicable): Light brown
4. Odor (circle one): NONE EARTHY ORGANIC OTHER
5. Moisture Content: DRY (MOIST) WET SATURATED
6. Density: LOOSE (DENSE)
7. Consistenty (if applicable): SOFT MEDIUM STIFF (HARD)
8. Structure: (STRATIFIED) BLOCKY NONSTRATIFIED
9. Local or Geoligic Name:
10. Other Information:

SAMPLE TAKEN BY: RCW DATE: 3-31-88
WITNESS: DATE SHIPPED:

FOR LAB USE ONLY

CUSTODIAN Frances B. McCauley DATE RECEIVED: 4-6-88
REPORTER [illegible] PERIOD OF ANALYSIS: [illegible]
DATE OF REPORT: [illegible]

SHIP TO:

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An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company

ORIGINAL (Red)

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company SKF
City/State
Contact
Telephone

EPA ID No.
Field No.
Lab No. [illegible]

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS.

SAMPLING DESCRIPTION:

Sample Location: B3 (See Map)
Boring/Well No.: B3 (4-6')
Depth of sample: 4-6'
Type of sampler: Trowel (Split-Spoon) Auger Other
Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): (GRAVEL) (SAND) (SILT) (CLAY) SOIL POWDER SLUDGE SLURRY OTHER
2. Size Distribution (percentage: 15 GRAVEL 15 SAND 70 FINES
3. Color (Munsell notation, if applicable): lt gray red-gray to brown
4. Odor (circle one): NONE EARTHY ORGANIC OTHER
5. Moisture Content: DRY (MOIST) WET SATURATED
6. Density: LOOSE (DENSE)
7. Consistency (if applicable): SOFT (MEDIUM) STIFF HARD
8. Structure: STRATIFIED BLOCKY (NONSTRATIFIED)
9. Local or Geoligic Name:
10. Other Information:

SAMPLE TAKEN BY: RCW
DATE: 3-31-88
WITNESS:
DATE SHIPPED:

FOR LAB USE ONLY

CUSTODIAN Frances A. McConnaly
REPORTER [signature]
DATE RECEIVED: 4-6-88
PERIOD OF ANALYSIS: 4-22-88
DATE OF REPORT: 4-28-88

SHIP TO:

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DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company

ORIGINAL (Red)

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company SCS — EPA ID No. _____

City/State _____ — Field No. _____

Contact _____ — Lab No. _____

Telephone _____

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS.

SAMPLING DESCRIPTION:

Sample Location: B3 (See Map)

Boring/Well No.: B3 (6-8')

Depth of sample: 6-8'

Type of sampler: Trowel (Split-Spoon) Auger Other _____

Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): (GRAVEL) (SAND) (SILT) (CLAY) SOIL POWDER SLUDGE SLURRY OTHER _____
2. Size Distribution (percentage: 30 GRAVEL 20 SAND 50 FINES
3. Color (Munsell notation, if applicable): Shades of brown and gray
4. Odor (circle one): NONE EARTHY ORGANIC OTHER _____
5. Moisture Content: DRY (MOIST) (WET) SATURATED
6. Density: LOOSE (DENSE)
7. Consistency (if applicable): (SOFT) MEDIUM STIFF HARD
8. Structure: STRATIFIED BLOCKY (NONSTRATIFIED)
9. Local or Geoligic Name: _____
10. Other Information: _____

SAMPLE TAKEN BY: RCW — DATE: 3-31-88

WITNESS: _____ — DATE SHIPPED: _____

FOR LAB USE ONLY

CUSTODIAN Eleanor J. McCarthy — DATE RECEIVED: 4-6-88

REPORTER _____ — PERIOD OF ANALYSIS: 4-22 to 5-2

DATE OF REPORT: 5-2-88

SHIP TO:

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DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company

ORIGINAL (Red)

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company SCE — EPA ID No. _____
City/State _____ — Field No. _____
Contact _____ — Lab No. [illegible]
Telephone _____

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS

SAMPLING DESCRIPTION:

Sample Location: B3 (See Map)
Boring/Well No.: B3 (5-10')
Depth of sample: 8-10'
Type of sampler: Trowel (Split-Spoon) Auger Other _____
Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): GRAVEL SAND SILT (CLAY) SOIL POWDER SLUDGE SLURRY OTHER _____
2. Size Distribution (percentage: _____ GRAVEL _____ SAND 100 FINES
3. Color (Munsell notation, if applicable): Light brown
4. Odor (circle one): NONE EARTHY ORGANIC OTHER _____
5. Moisture Content: DRY (MOIST) WET SATURATED
6. Density: LOOSE (DENSE)
7. Consistency (if applicable): SOFT MEDIUM STIFF (HARD)
8. Structure: (STRATIFIED) BLOCKY NONSTRATIFIED
9. Local or Geoligic Name: _____
10. Other Information: _____

SAMPLE TAKEN BY: RCW — DATE: 3-31-88
WITNESS: _____ — DATE SHIPPED: _____

FOR LAB USE ONLY

CUSTODIAN Laura P. McGrady — DATE RECEIVED: 4-6-88
REPORTER [illegible] — PERIOD OF ANALYSIS: 4-22 [illegible]
DATE OF REPORT: 4-28-88

SHIP TO:

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An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company SKF
City/State
Contact
Telephone

EPA ID No.
Field No.
Lab No. 8040050

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS

SAMPLING DESCRIPTION:

Sample Location: B4 (See Map)
Boring/Well No.: B4 (0-6')
Depth of sample: 0-6'
Type of sampler: Trowel (Split-Spoon) Auger Other
Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): GRAVEL SAND SILT (CLAY) SOIL POWDER SLUDGE SLURRY OTHER Shale
2. Size Distribution (percentage: ____ GRAVEL ____ SAND 95 FINES
3. Color (Munsell notation, if applicable): Light gray to light brown
4. Odor (circle one): NONE EARTHY ORGANIC OTHER
5. Moisture Content: DRY (MOIST) WET SATURATED
6. Density: LOOSE (DENSE)
7. Consistenty (if applicable): SOFT MEDIUM (STIFF) HARD
8. Structure: (STRATIFIED) BLOCKY NONSTRATIFIED
9. Local or Geoligic Name:
10. Other Information:

SAMPLE TAKEN BY: RCW
DATE: 3-30-88
WITNESS:
DATE SHIPPED:

FOR LAB USE ONLY

CUSTODIAN [signature]
REPORTER [signature]
DATE RECEIVED: 4-6-88
PERIOD OF ANALYSIS: 4-27-88
DATE OF REPORT: 4-28-88

SHIP TO:

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DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company

ORIGINAL (Red)

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company SKC

City/State

Contact

Telephone

EPA ID No.

Field No.

Lab No. 10480181

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS.

SAMPLING DESCRIPTION:

Sample Location: B-1 (See map)

Boring/Well No.: B1 (8-10')

Depth of sample: (8-10')

Type of sampler: Trowel **(Split-Spoon)** Auger Other

Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): GRAVEL SAND SILT **(CLAY)** SOIL POWDER SLUDGE SLURRY OTHER Shale
2. Size Distribution (percentage: ____ GRAVEL ____ SAND 99 FINES
3. Color (Munsell notation, if applicable): Mostly gray
4. Odor (circle one): NONE EARTHY ORGANIC OTHER
5. Moisture Content: DRY **(MOIST)** **(WET)** SATURATED
6. Density: LOOSE **(DENSE)**
7. Consistenty (if applicable): SOFT MEDIUM **(STIFF)** HARD
8. Structure: **(STRATIFIED)** BLOCKY NONSTRATIFIED
9. Local or Geoligic Name:
10. Other Information:

SAMPLE TAKEN BY: RLW DATE: 3-30-88

WITNESS: DATE SHIPPED:

FOR LAB USE ONLY

CUSTODIAN Frances P. McTonah DATE RECEIVED: 4-6-88

REPORTER [signature] PERIOD OF ANALYSIS: 6-22-88

DATE OF REPORT: 6-22-88

SHIP TO:

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company

HAZARDOUS WASTE/SOIL SAMPLING RECORD

ORIGINAL (Red)

mpany SKF
ty/State
ntact
lephone

EPA ID No.
Field No.
Lab No. 50 V10 8 A

UTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS.

MPLING DESCRIPTION:

Sample Location: B4 (See Map)
Boring/Well No.: B4 (12-14')
Depth of sample: 12-14'
Type of sampler: Trowel (Split-Spoon) Auger Other
Number of Grab Samples: 1

MPLE DESCRIPTION:

1. Typical Name (circle): GRAVEL SAND SILT (CLAY) SOIL POWDER SLUDGE SLURRY OTHER Claystone
2. Size Distribution (percentage: GRAVEL SAND 100 FINES
3. Color (Munsell notation, if applicable): Medium brown
4. Odor (circle one): NONE EARTHY ORGANIC OTHER
5. Moisture Content: DRY (MOIST) WET SATURATED
6. Density: LOOSE (DENSE)
7. Consistenty (if applicable): SOFT MEDIUM STIFF (HARD)
8. Structure: (STRATIFIED) BLOCKY NONSTRATIFIED
9. Local or Geoligic Name:
10. Other Information: Outside of spoon is wet

MPLE TAKEN BY: RCW DATE: 3-30-88
TNESS: DATE SHIPPED:

FOR LAB USE ONLY

STODIAN [signature] DATE RECEIVED: 4-6-88
PORTER [signature] PERIOD OF ANALYSIS: 4-27-88
DATE OF REPORT: 4-28-88

IP TO: LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

APPENDIX F

An Alcoa Separations Technology Company

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company Sir Hilton[illegible] EPA ID No. ____
City/State ____ Field No. ____
Contact ____ Lab No. ____
Telephone ____

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTION

SAMPLING DESCRIPTION:

Sample Location: Pit Floor Location 2
Boring/Well No.: ____
Depth of sample: ≈ 12.5' [illegible] below grade
Type of sampler: Trowel Split-Spoon (Auger) Other ____
Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): GRAVEL SAND SILT (CLAY) SOIL POWDER SLUDGE SLURRY OTHER ____ shale
2. Size Distribution (percentage: ____ GRAVEL ____ SAND ____ FINES
3. Color (Munsell notation, if applicable): Brown / light grey
4. Odor (circle one): NONE EARTHY ORGANIC OTHER ____
5. Moisture Content: DRY (MOIST) WET SATURATED
6. Density: (LOOSE) DENSE
7. Consistenty (if applicable): SOFT (MEDIUM) ~~STIFF~~ HARD
8. Structure: STRATIFIED BLOCKY (NONSTRATIFIED)
9. Local or Geoligic Name: ____
10. Other Information: ____

SAMPLE TAKEN BY: RSB DATE: 4-27-88
WITNESS: ____ DATE SHIPPED: ____

FOR LAB USE ONLY

CUSTODIAN Frances B. McConahie DATE RECEIVED: 4-26-88
REPORTER [illegible] PERIOD OF ANALYSIS: 5-?-88
DATE OF REPORT: 5-?-88

SHIP TO:

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DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company

ORIGINAL

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company SCF Plant — EPA ID No. _____
City/State _____ — Field No. 1, 3
Contact _____ — Lab No. _____
Telephone _____

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS

SAMPLING DESCRIPTION:

Sample Location: Pt Floor location 3
Boring/Well No.: _____
Depth of sample: _____
Type of sampler: Trowel Split-Spoon (Auger) Other _____
Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): (GRAVEL) SAND SILT (CLAY - shale) SOIL POWDER SLUDGE SLURRY OTHER _____
2. Size Distribution (percentage: _____ GRAVEL _____ SAND _____ FINES
3. Color (Munsell notation, if applicable): Grey / stained
4. Odor (circle one): NONE EARTHY ORGANIC OTHER Smells of oil
5. Moisture Content: DRY MOIST WET SATURATED
6. Density: (LOOSE) DENSE
7. Consistenty (if applicable): SOFT (MEDIUM) (STIFF) HARD
8. Structure: STRATIFIED BLOCKY (NONSTRATIFIED)
9. Local or Geoligic Name: _____
10. Other Information: _____

SAMPLE TAKEN BY: RSB — DATE: 4-25-88
WITNESS: _____ — DATE SHIPPED: _____

FOR LAB USE ONLY

CUSTODIAN Laurence P. Mooney — DATE RECEIVED: 4-26-88
REPORTER _____ — PERIOD OF ANALYSIS: 5-1-88
DATE OF REPORT: 5-1-88

SHIP TO:

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DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company

ORIGINAL (Red)

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company [illegible] EPA ID No. [illegible]
City/State Field No. [illegible]
Contact Lab No. [illegible]
Telephone

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS

SAMPLING DESCRIPTION:

Sample Location: Pit Floor Location 4
Boring/Well No.:
Depth of sample:
Type of sampler: Trowel Split-Spoon (Auger) Other
Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): GRAVEL SAND SILT (CLAY) SOIL POWDER SLUDGE SLURRY OTHER — Shale
2. Size Distribution (percentage: ___ GRAVEL ___ SAND ___ FINES
3. Color (Munsell notation, if applicable): light brown / brown
4. Odor (circle one): NONE EARTHY ORGANIC OTHER
5. Moisture Content: DRY MOIST (WET) – (SATURATED)
6. Density: LOOSE DENSE
7. Consistenty (if applicable): SOFT (MEDIUM – STIFF) HARD
8. Structure: STRATIFIED BLOCKY (NONSTRATIFIED)
9. Local or Geoligic Name:
10. Other Information:

SAMPLE TAKEN BY: RSB DATE: 4-25-88
WITNESS: DATE SHIPPED:

FOR LAB USE ONLY

CUSTODIAN Frances P. McConaghy DATE RECEIVED: 4-26-88
REPORTER [illegible] PERIOD OF ANALYSIS: 5-4-88
DATE OF REPORT: 5-4-88

SHIP TO: LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company

ORIGINAL

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company SKF Nilcon
City/State
Contact
Telephone

EPA ID No.
Field No.
Lab No.

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIO

SAMPLING DESCRIPTION:

Sample Location: DL Floor Location No 5
Boring/Well No.:
Depth of sample:
Type of sampler: Trowel Split-Spoon (Auger) Other
Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): (GRAVEL) SAND SILT (CLAY) SOIL POWDER
   SLUDGE SLURRY OTHER shale
2. Size Distribution (percentage: GRAVEL SAND FINES
3. Color (Munsell notation, if applicable): light Brown / Brown
4. Odor (circle one): NONE EARTHY ORGANIC OTHER
5. Moisture Content: DRY MOIST (WET) (SATURATED)
6. Density: (LOOSE) DENSE
7. Consistenty (if applicable): SOFT (MEDIUM) STIFF HARD
8. Structure: STRATIFIED BLOCKY (NONSTRATIFIED)
9. Local or Geoligic Name:
10. Other Information:

SAMPLE TAKEN BY: RSB DATE: 4-25-88
WITNESS: DATE SHIPPED:

FOR LAB USE ONLY

CUSTODIAN Frances J. McConaly
REPORTER
DATE RECEIVED: 4-26-88
PERIOD OF ANALYSIS:
DATE OF REPORT:

SHIP TO:

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DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

An Alcoa Separations Technology Company

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company SCP [illegible] EPA ID No. ____

City/State ____ Field No. ____

Contact ____ Lab No. ____

Telephone ____

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTI[ONS]

SAMPLING DESCRIPTION:

Sample Location: P.L Floor No 6

Boring/Well No.: ____

Depth of sample: ____

Type of sampler: Trowel Split-Spoon (Auger) Other ____

Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): (GRAVEL) SAND SILT (CLAY) - shale SOIL POWDER SLUDGE SLURRY OTHER ____
2. Size Distribution (percentage: ____ GRAVEL ____ SAND ____ FINES
3. Color (Munsell notation, if applicable): Brown / Grey / stained
4. Odor (circle one): NONE EARTHY ORGANIC OTHER Smells of Oil
5. Moisture Content: (DRY) – (MOIST) WET SATURATED
6. Density: (LOOSE) DENSE
7. Consistenty (if applicable): SOFT (MEDIUM) STIFF HARD
8. Structure: STRATIFIED BLOCKY (NONSTRATIFIED)
9. Local or Geoligic Name: ____
10. Other Information: ____

SAMPLE TAKEN BY: BSB DATE: 4-25-88

WITNESS: ____ DATE SHIPPED: ____

FOR LAB USE ONLY

CUSTODIAN [signature] DATE RECEIVED: 4-25-88

REPORTER [signature] PERIOD OF ANALYSIS: 5/1-88

DATE OF REPORT: 5/1-88

SHIP TO: LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

ORIGINAL
(Red)

APPENDIX G

PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES
Bureau of Waste Management
P. O. Box 2063
Harrisburg, PA 17120

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)
Form Approved. OMB No. 2000-0404. Expires 7-31-86

*PABX378961 (Red)

ER-SWM-51:REV. 10/84

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. P.A.D.0.0.4.3.4.1.4.7.1.7.2 — Manifest Document No. 0.1.0.0.5

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law but is required by State law.

3. Generator's Name and Mailing Address
SKF Industries, Inc.
1000 Logan Blvd.
Altoona, PA 16602

4. Generator's Phone (814) 944-5386

A. State Manifest Document Number: PAB 378961 2

B. State Gen. ID: PAD 004344172

5. Transporter 1 Company Name: Keystone Block & Transportation Co.

6. US EPA ID Number: P.A.D.9.8.0.6.9.2.0.0.8

C. State Trans. ID: PA-AH 0236

7. Transporter 2 Company Name

8. US EPA ID Number

D. Transporter's Phone (215) 928-4840

E. State Trans. ID: PA-AH

F. Transporter's Phone ( )

9. Designated Facility Name and Site Address
CECOS International
5092 Aber Road
Williamsburg, OH 45176

10. US EPA ID Number: O.H.D.0.8.7.4.3.3.7.4.4

G. State Facility's ID: Not Required

H. Facility's Phone (513) 724-6114

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a. Waste Salt - Sodium Nitrite fused with Potassium Nitrate UN- 1487 RQ - 100/45.4	49	D-M	20	T	D 0 0 1
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above (include physical state and hazard code)

	Haz. Code	Physical State		Haz. Code	Physical State
a.	I	S	c.		
b.			d.		

K. Handling Codes for Wastes Listed Above

a.	L	c.	
b.		d.	

15. Special Handling Instructions and Additional Information

Oxidizer Drums #723- # 771 (49 Drums)
SKF P.O. #6- 02013

Product Code 6267A
Special Handling
W.O. 206868

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002 (b) of RCRA, I also certify that I have a program in place to reduce volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name	Signature	Month	Day	Year
Gerald J. Halbedl	Gerald J Halbedl	03	04	87

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Samuel Hotchkiss	Samuel Hotchkiss	03	04	87

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space
33,420# Pa

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Ralph D. Lacimore	Ralph D Lacimore	03	04	87

PA Form 8700-22 (3-84)

PAB 3789612

3-1e

PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES — AND CHEMOTHERAPEUTIC WASTE

Bureau of Waste Management
P. O. Box 8550
Harrisburg, PA 17105-8550

ER-WM-51 REV. 11/89

Form approved.
OMB No. 2050-0039
Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law but is required by State law.
PAD004344172	37563		

3. Generator's Name and Mailing Address
SKF INDUSTRIES
1000 LOGAN BLVD. ALTOONA, PA 16602

4. Generator's Phone (814) 949-7723

A. State Manifest Document Number: PAC 4484970

B. State Gen. ID

5. Transporter 1 Company Name: SAFETY-KLEEN CORP.
6. US EPA ID Number: ILD051060408

C. State Trans. ID: PA- AH 0172

7. Transporter 2 Company Name
8. US EPA ID Number

D. Transporter's Phone: (814) 266-4815

E. State Trans. ID

9. Designated Facility Name and Site Address
SAFETY-KLEEN CORP.
STATE HWY 146
NEWCASTLE, KY 40050
10. US EPA ID Number: KYD053348108

F. Transporter's Phone ( )

G. State Facility's ID

H. Facility's Phone: (502) 845-2453

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	L Waste No.
a. WASTE 1,1,1-TRICHLOROETHANE ORM-A UN2831 (F001) (ERG#74)	4	DM	2440	P	D040
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above

Lab Pack	Physical State
a.	
b.	
c.	
d.	

K. Handling Codes for Wastes Listed Above
a. S02/T63
b.
c.
d.

15. Special Handling Instructions and Additional Information
IN CASE OF EMERGENCY, CONTACT SAFETY-KLEEN AT 1-800-669-5740 OR 708-888-4660 (24 HOURS).
IF DESIGNATED FACILITY IS UNABLE TO ACCEPT WASTE, RETURN TO GENERATOR.
4-077-01-5123 WK9046 M37563
11a. SAMPLE #063673 / CONTROL #0057986-1
SK DOT #11a. 0511
82467476

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
GERALD J. HACKETT	Gerald J Hackett	11	13	90

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
KEVIN DENT	Kevin Dent	11	13	90

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Pamela Ritchie	Pamela Ritchie	11	16	90

EPA Form 8700-22 (Rev. 9/88) Previous editions are obsolete

Copy 5 - TSD Facility: Mail to Generator

Division of Hazardous Waste Management
P. O. Box 2063
Harrisburg, PA 17120

Rev.5/84

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2000-0404. Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. P A D 0 0 4 3 4 4 1 7 2 — Manifest Document No.

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
SKF INDUSTRIES INC
1000 LOGAN BLVD.
ALTOONA, PA 16602

A. State Manifest Document Number: PAB 01044385

B. State Gen. ID

4. Generator's Phone (814) 944-5386

5. Transporter 1 Company Name: WILLS TRUCKING, INC.

6. US EPA ID Number: O H D 0 6 8 9 1 3 4 0 9

C. State Trans. ID: PA-AH 0295

7. Transporter 2 Company Name

8. US EPA ID Number

D. Transporter's Phone: 216) 659-9381

E. State Trans. ID: PA-AH

9. Designated Facility Name and Site Address
WAYNE DISPOSAL INC.
49350 NORTH SERVICE DRIVE
BELLEVILLE, MICH 48111

10. US EPA ID Number: M I D 0 4 8 0 9 0 6 3 3

F. Transporter's Phone ( )

G. State Facility's ID: Not Required

H. Facility's Phone: (313) 697-7830

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. NON-HAZARDOUS WASTE SOLID NON-REGULATED CSOL	001	DT	20	T	C S O L
b.					
c.					
d.					

RECEIVED
JAN 31 1991
NUS CORPORATION
REGION 3

GENERATOR

J. Additional Descriptions for Materials Listed Above (Include physical state and hazard code)	K. Handling Codes for Wastes Listed Above
a. 81 C. 7981 WC	a.
b.	b.
c.	c.
d.	d.

15. Special Handling Instructions and Additional Information

FOR TRACKING PURPOSES ONLY -

PLEASE RETURN SIGNED COPY

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations, and all applicable State laws/regulations.

Printed/Typed Name	Signature	Date (Month Day Year)
GERALD J. HALBEDL	Gerald J. Halbedl	1 2 2 9 1

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)
RONALD SIMMONS	Ronald Simmons	1 2 2 9 1

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)

FACILITY

19. Discrepancy Indication Space

945721

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Date (Month Day Year)
R E DAVIS		1 2 2 9 1

PAB 01044385

Form 8700-22 (3-84)

COPY 3 - Generator - Mailed by TSD Facility

PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES
Bureau of Waste Management
P. O. Box 2063
Harrisburg, PA 17120
Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

ER-SWM-51:REV: 6/87

Form approved.
OMB No. 2050-0039
Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. P A D 0 0 4 3 4 4 1 7 2	Manifest Document No.
2. Page 1 of	Information in the shaded areas is not required by Federal law but is required by State law.
3. Generator's Name and Mailing Address: SKF INDUSTRIES, INC. 1000 LOGAN BLVD. ALTOONA, PA 16602	A. State Manifest Document Number: PAB 5282270
4. Generator's Phone (814) 944-5381	B. State Gen. ID: PAD 004344172
5. Transporter 1 Company Name: THE CHARLES E. BRAKE CO., INC.	6. US EPA ID Number
	C. State Trans. ID: PA-AH
7. Transporter 2 Company Name	8. US EPA ID Number
	D. Transporter's Phone (717) 369-3411
	E. State Trans. ID: PA-AH
9. Designated Facility Name and Site Address: COMMUNITY REFUSE LIMITED 9446 LETZBORG RD. GREENCASTLE, PA 17225	10. US EPA ID Number
	F. Transporter's Phone ( )
	G. State Facility's ID: Not Required
	H. Facility's Phone (717) 597-4056

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. NON-HAZARDOUS SOIL	1	D T	2 0	T	N/A
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above (Include physical state and hazard code)

	Haz. Code	Physical State	Haz. Code	Physical State
a.			c.	
b.			d.	

K. Handling Codes for Wastes Listed Above

a.	c.
b.	d.

15. Special Handling Instructions and Additional Information

NON-HAZARDOUS SOIL

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
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Printed/Typed Name	Signature	Month	Day	Year
GERALD J. HALBEDL	Gerald J Halbedl	07	07	88

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Art Wilson	Art Wilson	7	7	88

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR

TRANSPORTER

FACILITY

In case of an emergency or spill immediately call the National Response Center (800) 424-8802 and the PA DER (717) 787-4343

EPA Form 8700-22 (Rev. 9-86) Previous editions are obsolete

PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES
Bureau of Waste Management
P. O. Box 8550
Harrisburg, PA 17105-8550

FOR SHIPMENT OF HAZARDOUS, INFECTIOUS AND CHEMOTHERAPEUTIC WASTE

Form approved.
OMB No. 2050-0039
Expires 9-30-91

ER-SWM-51: REV. 12/88

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law but is required by State law.
P A D 0 0 4 3 4 4 1 7 2			

3. Generator's Name and Mailing Address
SKF USA INC.
1000 LOGAN BLVD.
ALTOONA PA 16602

4. Generator's Phone (814) 949-7723

A. State Manifest Document Number
PAC 0046034

B. Sate Gen. ID

5. Transporter 1 Company Name — **6. US EPA ID Number**
J.M. WAGNER & SONS — P A D 0 6 1 7 7 9 9 1 4

C. State Trans. ID — PA-AH — N/A

7. Transporter 2 Company Name — **8. US EPA ID Number**

D. Transporter's Phone (814) 695-1251

E. State Trans. ID — PA-AH

9. Designated Facility Name and Site Address — **10. US EPA ID Number**
WASTE CONVERSIONS INC.
2869 SANDSTONE DRIVE
HATFIELD PA 19440 — P A D 0 8 5 6 9 0 5 9 2

F. Transporter's Phone ( )

G. State Facility's ID

H. Facility's Phone (215) 822-8996

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a. NON HAZARDOUS WASTE SOLID NON REGULATED MATERIAL	0 0 1	D T	20	Y	
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above *(include physical state and hazard code)*

a. Lab Pack — Physical State: S L
b. Lab Pack — Physical State:
c. Lab Pack — Physical State:
d. Lab Pack — Physical State:

K. Handling Codes for Wastes Listed Above
a.
b.
c.
d.

15. Special Handling Instructions and Additional Information
GRINDING SWARF WC-7004
SKF PO #60x 6-04554

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name	Signature	Month	Day	Year
GERALD J. HALBEDL	Gerald J. Halbedl	12	10	90

17. Transporter 1 Acknowledgement of Receipt of Materials

TRANSPORTER

Printed/Typed Name	Signature	Month	Day	Year
ROBERT A. WAGNER	Robert A. Wagner	12	10	90

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

EPA Form 8700-22 (Rev. 9/88) Previous editions are obsolete

ORIGINAL
(Red)

LANCY ENVIRONMENTAL SERVICES COMPANY

DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company

P.O. Box 419, Pittsburgh, Pennsylvania 15230-0419 (412) 772-0044 FAX (412) 772-1360 Telex 86-6259
Street Address: 181 Thorn Hill Road, Warrendale, Pennsylvania 15086-7527

May 20, 1988

Mr. Jeff Molnar
Regional Hydrogeologist
Pennsylvania Department of Environmental Resources
Bureau of Water Quality Management
One Araret Boulevard
Harrisburg, PA 17110

Dear Mr. Molnar:

On behalf of our client, SKF USA Inc. please find enclosed a copy of the Soil Contamination Assessment Report for the underground storage tank area at SKF's Altoona, PA facility. We hope the conclusions and recommendations provided in this report meet with your approval. We would like to schedule a meeting at the site during the week of May 30, 1988 in order to discuss the results of the assessment and the appropriate course of action.

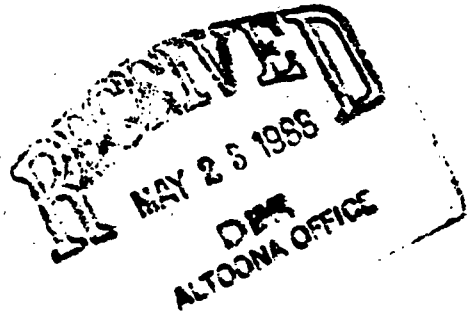
If you have any questions or concerns, please feel free to call me at your convenience at 412/772-1235. Your prompt response to this matter will be greatly appreciated.

Sincerely,

Lancy Environmental Services Company

Robert S. Bear
Project Manager

RSB:csb
Enclosure
cc: Mr. Jeffrey Stout - PADER, Altoona, PA
Mr. Gerry Halbedl - SKF USA Inc.
Mr. William McGlocklin - SKF USA Inc.



LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
P.O. Box 419
Pittsburgh, PA 15230-0419
Phone (412) 772-0044 • FAX (412) 772-0055

ORIGINAL (Red)

ANALYSIS REPORT

SKF Industries, Inc.
1000 Logan Boulevard
Altoona, PA 16602

Attention: Gerald Halbedl

Report Date 5/10/88
Sample Date 4/25/88 by RB
Received 4/26/88 by FM
Analyzed 4/26 - 5/10/88 by Staff
No. of Samples 1
Purchase Order # 6-07526

Analysis of Coalescer Effluent

Project #20526

Sample	Week #1
Lab Reference #	8040805
	(mg/L)
Parameter	
pH (SU)	7.5
Solids, Total Dissolved	540
Oil and Grease	<2.0
Antimony	0.48
Arsenic	<0.002
Beryllium	0.001
Cadmium	<0.004
Chromium	<0.006
Copper	<0.007
Lead	<0.005
Mercury	<0.0002
Nickel	0.02
Selenium	<0.002
Silver	<0.01
Thallium	4.9
Zinc	0.11
Volatile Organics	(ug/L)
Chloromethane	<2.0
Bromomethane	<2.0
Dichlorodifluoromethane	<2.0
Vinyl Chloride	<5.0
Chloroethane	<2.0
Methylene Chloride	<5.0
1,1-Dichloroethylene	<2.0
1,1-Dichloroethane	13
Trans-1,2-Dichloroethylene	4.4
Chloroform	<2.0
1,2-Dichloroethane	<2.0
1,1,1-Trichloroethane	6.5
Carbon Tetrachloride	<2.0

C. John Ritzert, Manager-Technical Operations

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
P.O. Box 419
Pittsburgh, PA 15230-0419
Phone (412) 772-0044 • FAX (412) 772-0055

ORIGINAL (Red)

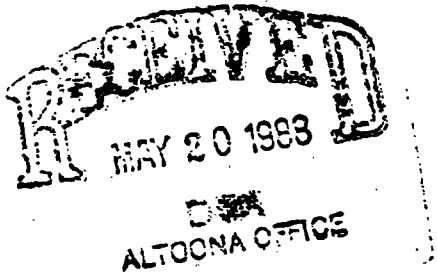
ANALYSIS REPORT

SKF Industries, Inc.
Analysis of Coalescer Effluent

5/10/88
6-07526

Project # 20526

Sample Lab Reference #	Week #1 8040805 (ug/L)
Volatile Organics (cont'd)	
Bromodichloromethane	<2.0
1,2-Dichloropropane	<2.0
Cis-1,3-Dichloropropene	<2.0
Trichloroethylene	7.2
Chlorodibromomethane	<2.0
1,1,2-Trichloroethane	<2.0
Trans-1,3-Dichloropropene	<2.0
2-Chloroethylvinyl Ether	<2.0
Bromoform	<5.0
1,1,2,2-Tetrachloroethane	<2.0
Tetrachloroethylene	<2.0
Chlorobenzene	<2.0
1,3-Dichlorobenzene	<5.0
1,2-Dichlorobenzene	<5.0
1,4-Dichlorobenzene	<5.0
Benzene	<2.0
Toluene	<2.0
Chlorobenzene	<2.0
Ethylbenzene	<2.0



C. John Ritzert, Manager-Technical Operations

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

ORIGINAL (Red)

BUREAU OF WASTE MANAGEMENT
Harrisburg Region
615 Howard Avenue
Altoona, Pennsylvania 16601
(814) 946-7292
June 27, 1988

Mr. Gerald Halbedl
SKF Industries, Inc.
1000 Logan Boulevard
Altoona, PA 16602

BCaricaw

Dear Mr. Halbedl:

This letter will serve to confirm the Department's position on disposal of contaminated soil resulting from construction at the above location.

This matter was referred to Tony Kar, Environmental Chemist for the Department, who then reviewed the Soil Contamination Assessment Report submitted to us by your consultant Lancy Environmental Services Company.

As a result of this review, the Department has no objection to this soil being disposed of in a lined municipal waste landfill.

Any new contaminated soil excavated from the site must be retained on site and tested to determine its ultimate use or disposal.

If you have any further questions concerning this matter, you may contact me at (814) 946-7292 or Mr. Kar at (717) 657-4586.

Sincerely,

Michael B. Union
Solid Waste Specialist

MBU/kc
c: T. Kar
J. Molnar
Harrisburg Waste Management File
Altoona File

ORIGINAL
(Red)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

June 28, 1988

Mr. Robert C. Murtha Jr.
Community Refuse Ltd. Inc.,
43-A East Baltimore Street
Greencastle, PA 17225

Re: Excavated Soil Disposal
SKF USA Inc., Altoona, PA
Community Refuse Ltd
Permit No. 101100
Montgomery Township
Franklin County

Dear Mr. Murtha:

This letter is in response to our conversation on June 28, 1988 concerning the disposal of excavated soil at SKF USA Inc., Altoona PA.

Test analysis performed by Lancy Environmental Services of Pittsbugh PA indicated that this waste does not exhibit the characteristics of E.P. Toxicity. Therefore, Community Refuse Ltd Lancfill is authorized to accept for a one-time disposal of approximately 750 tons of the excavated soil from SKF USA Inc. Should you choose the option of using this waste as a daily cover, please be advised that this waste ought to be stored temporary on site with a liner to prevent any leachate migration.

If there are any questions concerning this letter, please contact me.

Sincerely,

Anthony C.M. Kar
Environmental Chemist
Harrisburg Region

CC: Mr. Mike Union, PADER Altoona Office
MR. Robert S. Bear, Lancy Environmental Services Company
Mr. Gerry Halbedl, SKF USA Inc.

SKF.
BLAIR Co
ORIGINAL
H. (Red)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

BUREAU OF WASTE MANAGEMENT
Harrisburg Region
615 Howard Avenue
Altoona, Pennsylvania 16601
(814) 946-7292

July 15, 1988

DER
WASTE MANAGEMENT
JUL 20 1988
HARRISBURG REGION

Mr. Gerald Halbedl
SKF Industries, Inc.
1000 Logan Boulevard
Altoona, PA 16602

Dear Mr. Halbedl:

This letter is a follow-up to my letter of June 27, 1988, concerning use or disposal of contaminated soil at the SKF Construction Site.

Your environmental consultant Robert Bear has requested approval to transport newly excavated soil from the site for use as fill material in the local area.

The Department will approve such use providing the following conditions are met:

1. Representative sampling must be done and the results must show the soil contains no more than 500 ppm oil and grease contamination.

2. SKF Industries, Inc., must provide the owner of the property receiving the soil with a letter indicating that this soil is contaminated to a degree and is not to be considered "clean fill".

If you have any further questions concerning this matter, you may contact me at (814) 946-7292.

Sincerely,

Michael B. Union

Michael B. Union
Solid Waste Specialist

MBU/kc
c: H.R.O. through F. Fair
Jack Conrad
T. Kar
J. Molnar
Altoona File

SKF Bearing Industries Co.

SKF
ROLLING BEARINGS

ORIGINAL
(Red)

Manufacturing

Altoona, PA
USA

11-7-88

CURRY EXCAVATING
PO BOX 269
DUNCANSVILLE PA 16635

Attention: RICHARD CURRY

Dear MR CURRY :

The stock piled soil which you have been contracted to remove from the parking lot at SKF's Altoona facility contains low levels of oil and grease (less than 500 mg/kg - see attached test results). The Pennsylvania Department of Environmental Resources (PADER) has approved the use of this material as general backfill.

If you have any questions regarding the management of this soil, please feel free to call me or Mr. Jeffrey Stout of PADER at 814/946-7293.

Sincerely,

Gerald J. Halbedl

Gerald J. Halbedl

GJH:mja

Attachment

cc: Jeffrey Stout - PADER, Altoona, PA
Robert S. Bear - Lancy Environmental Services Co.
File

SITE: PLEASANT VALLEY BLVD + FAIRWAY DR
NEXT TO SIR SKATE - LAND OWNED
BY CURRY EXCAVATING

1000 Logan Blvd.
Altoona, PA 16602

Telephone: (814) 944-5381
FAX: (814) 943-0557

FAIRWAY LABORATORIES, INC.

2900 Fairway Drive
P. O. Box 1925
Altoona, Pennsylvania 16603

(814) 946-4306

ORIGINAL
(Red)

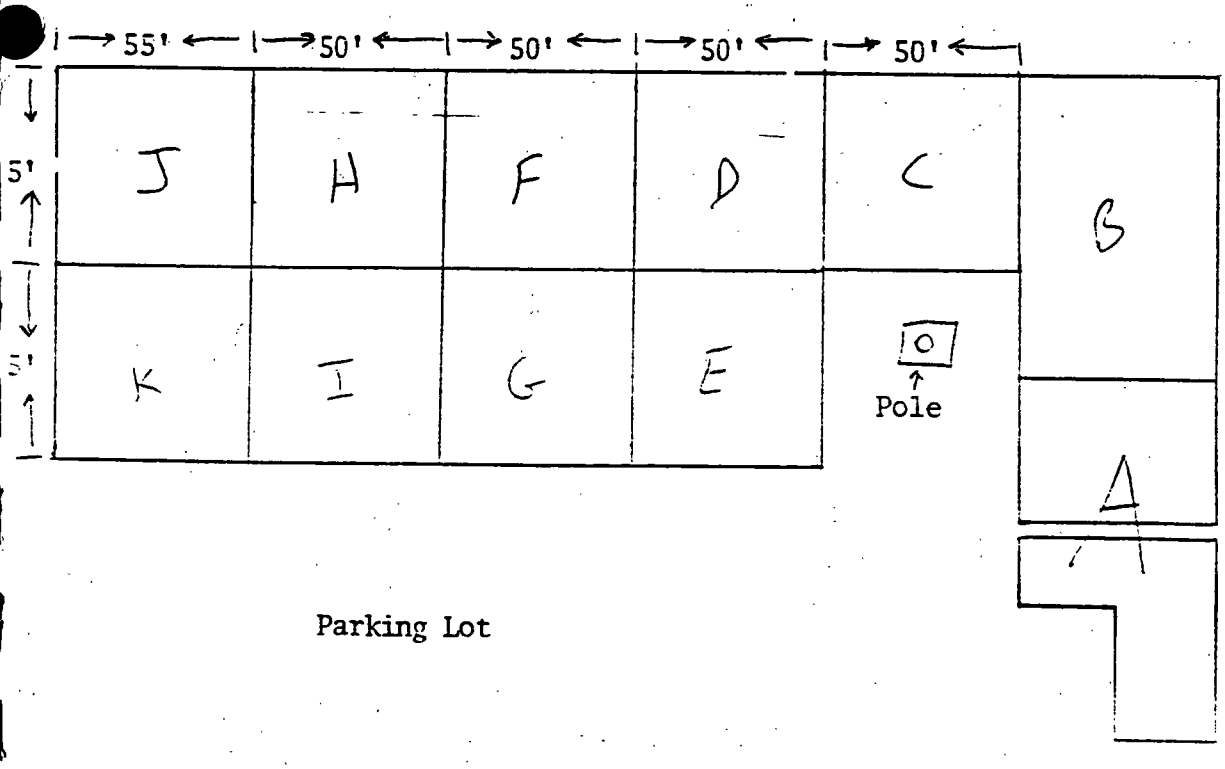
October 21, 1988

SKF Industries, Inc.
1000 Logan Blvd.
Altoona, PA 16602
Attn: Mr. Jerry Halbedl

Sampling Procedure for Dirt samples collected 10/13/88

The dirt pile was sectioned off into eleven (11) sections of approximately 50 ft x 45 ft. The measurements were made by SKF. Each section consisted of numerous piles of dirt made by trucks when they dumped their load.

The sample composites were collected by removing (by hand) a small (approximately 2-10 grams) sample of dirt from the top of each pile. The number of sample collections per composite reflects the number of dirt piles sampled in each section. The samples were collected in a glass bottle, sealed, and taken to Fairway Labs, Inc. for analysis. This procedure was not outlined by SKF as they did not volunteer any procedure when asked. The go ahead was given to the lab to sample as they wished using simplest method available.



FAIRWAY LABORATORIES, INC.

2900 Fairway Drive
P. O. Box 1925
Altoona, Pennsylvania 16603

(814) 946-4306

ORIGINAL
(Red)

SKF Industries, Inc.
1000 Logan Blvd.
Altoona, PA 16602
Attn: Mr. Jerry Halbedl

	Test Results
Received	10/13/88
File #	10-138
Description	A
Sample collections/composite	45
Oil & Grease (ppm)	49

ORIGINAL
(Red)

FAIRWAY LABORATORIES, INC.

2900 Fairway Drive
P. O. Box 1925
Altoona, Pennsylvania 16603

(814) 946-4306

SKF Industries, Inc.
1000 Logan Blvd.
Altoona, PA 16602
Attn: Mr. Jerry Halbedl

	Test Results
Received	10/13/88
File #	10-139
Description	B
Sample collections/composite	36
Oil & Grease (ppm)	53

ORIGINAL
(Red)

FAIRWAY LABORATORIES, INC.

2900 Fairway Drive
P. O. Box 1925
Altoona, Pennsylvania 16603

(814) 946-4306

SKF Industries, Inc.
1000 Logan Blvd.
Altoona, PA 16602
Attn: Mr. Jerry Halbedl

	Test Results
Received	10/13/88
File #	10-140
Description	C
Sample collections/composite	30
Oil & Grease (ppm)	29

SKF Bearing Industries Co.

SKF ROLLING BEARINGS

Manufacturing

Altoona, PA
USA

July 23, 1988

* CURRY EXCAVATING
RD 1 BOX 269
DUNCANSVILLE PA 16635

Attention: RICHARD CURRY

Dear MR CURRY :

The stock piled soil which you have been contracted to remove from the parking lot at SKF's Altoona facility contains low levels of oil and grease (less than 500 mg/kg - see attached test results). The Pennsylvania Department of Environmental Resources (PADER) has approved the use of this material as general backfill.

If you have any questions regarding the management of this soil, please feel free to call me or Mr. Jeffrey Stout of PADER at 814/946-7293.

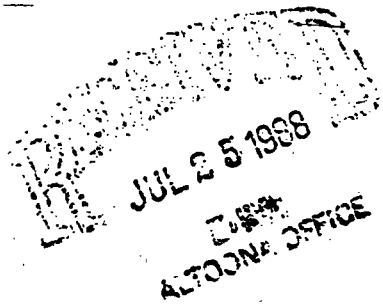
Sincerely,

Gerald J. Halbedl

Gerald J. Halbedl

GJH:mja

Attachment



cc: Jeffrey Stout - PADER, Altoona, PA
Robert S. Bear - Lancy Environmental Services Co.
File

SITE: PLEASANT VALLEY BLVD & FAIRWAY DRIVE
NEXT TO SIR SKATE

* Per G. Halbedl, Richard Curry is the property owner of the disposal site.

1000 Logan Blvd.
Altoona, PA 16602

Telephone: (814) 943-5381
FAX: (814) 943-0557

ORIGINAL
(Red)

FAIRWAY LABORATORIES, INC.

2900 Fairway Drive
P. O. Box 1925
Altoona, Pennsylvania 16603

(814) 946-4306

July 19, 1988

SKF Industries
1000 Logan Blvd.
Altoona, Pa. 16602

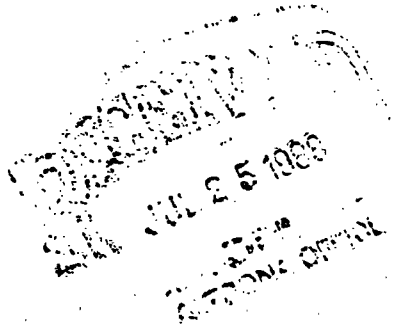
TEST RESULTS

Soil stockpile from parking lot

Received	7/20/88
File #	7-168
Description	"E"
Date	7/20/88

Oil & Grease (ppm)	85 (dried)

Note: Sample collected by Fairway Laboratories, Inc. personel .



SKF Bearing Industries Co.

ORIGINAL (Red)

SKF ROLLING BEARINGS

Manufacturing

Altoona, PA
USA

7/23/93

CURRY EXCAVATING
RD1 BOX 269
DUNCANSVILLE PA 16635

Attention: RICHARD CURRY

Dear MR CURRY :

The stock piled soil which you have been contracted to remove from the parking lot at SKF's Altoona facility contains low levels of oil and grease (less than 500 mg/kg - see attached test results). The Pennsylvania Department of Environmental Resources (PADER) has approved the use of this material as general backfill.

If you have any questions regarding the management of this soil, please feel free to call me or Mr. Jeffrey Stout of PADER at 814/946-7293.

Sincerely,

Gerald J. Halbedl

Gerald J. Halbedl

GJH:mja

Attachment

cc: Jeffrey Stout - PADER, Altoona, PA
Robert S. Bear - Lancy Environmental Services Co.
File

SITE: PLEASANT VALLEY BLVD & FAIRWAY DRIVE
NEXT TO SIR SKATE

1000 Logan Blvd.
Altoona, PA 16602

Telephone: (814) 944-5381
FAX: (814) 943-0557

ORIGINAL (Red)

SKF Bearing Industries Co.

SKF ROLLING BEARINGS

Manufacturing

Altoona, PA
USA

July 23, 1988

HUGHES - CRAWFORD CO. INC
438 7TH AVENUE
ALTOONA PA 16602

Attention: J.A. ORR III

Dear MR. ORR :

The stock piled soil which you have been contracted to remove from the parking lot at SKF's Altoona facility contains low levels of oil and grease (less than 500 mg/kg - see attached test results). The Pennsylvania Department of Environmental Resources (PADER) has approved the use of this material as general backfill.

If you have any questions regarding the management of this soil, please feel free to call me or Mr. Jeffrey Stout of PADER at 814/946-7293.

Sincerely,

Gerald J. Halbedl

Gerald J. Halbedl

GJH:mja

Attachment

cc: Jeffrey Stout - PADER, Altoona, PA
Robert S. Bear - Lancy Environmental Services Co.
File

SITE: PLEASANT VALLEY BLVD & FAIRWAY DR.
NEXT TO SIR SKATE - LAND OWNED
BY CURRY EXCAVATING.

1000 Logan Blvd.
Altoona, PA 16602

Telephone: (814) 944-5381
FAX: (814) 943-0557

ORIGINAL
(Red)

FAIRWAY LABORATORIES, INC.

2900 Fairway Drive
P. O. Box 1925
Altoona, Pennsylvania 16603

(814) 946-4306

July 27, 1988

SKF Industries
1000 Logan Blvd.
Altoona, PA 16602

TEST RESULTS

Received 7/26/88

File #	7-22
Description	Sample "F" - soil from pit
Date	7/26/88, 10:45A.M.
Oil & grease (ppm)	27 (Dried)

SKF Bearing Industries Co.

ORIGINAL (Red)

ROLLING BEARINGS

Manufacturing

Altoona, PA
USA

Dec 9, 1988

Hughes-Crawford Co. Inc.
[illegible]
[illegible]

Attention: [illegible]

Dear Joe:

The stock piled soil which you have been contracted to remove from the parking lot at SKF's Altoona facility contains low levels of oil and grease (less than 500 mg/kg - see attached test results). The Pennsylvania Department of Environmental Resources (PADER) has approved the use of this material as general backfill.

If you have any questions regarding the management of this soil, please feel free to call me or Mr. Jeffrey Stout of PADER at 814/946-7293.

Sincerely,

Gerald J. Halbedl

GJH:mja

Attachment

cc: Jeffrey Stout - PADER, Altoona, PA
Robert S. Bear - Lancy Environmental Services Co.
File

[illegible]: FRED MOODY JR HOME
BOX 2 FRANKSTOWN RD
HOLLIDAYSBURG PA 16648

SKF Bearing Industries Co.

ROLLING BEARINGS

Manufacturing

Altoona, PA
USA

[illegible]

[illegible]

Attention: [illegible]

Dear FRED :

The stock piled soil which you have been contracted to remove from the parking lot at SKF's Altoona facility contains low levels of oil and grease (less than 500 mg/kg - see attached test results). The Pennsylvania Department of Environmental Resources (PADER) has approved the use of this material as general backfill.

If you have any questions regarding the management of this soil, please feel free to call me or Mr. Jeffrey Stout of PADER at 814/946-7293.

Sincerely,

Gerald J. Halbedl

GJH:mja

Attachment

cc: Jeffrey Stout - PADER, Altoona, PA
Robert S. Bear - Lancy Environmental Services Co.
File

[illegible] FRED M[illegible] JR HOME
BOX 2 FRANKSTOWN RD
[illegible]

ORIGINAL
(Red)

FAIRWAY LABORATORIES, INC.

2900 Fairway Drive
P. O. Box 1925
Altoona, Pennsylvania 16603

(814) 946-4306

October 21, 1988

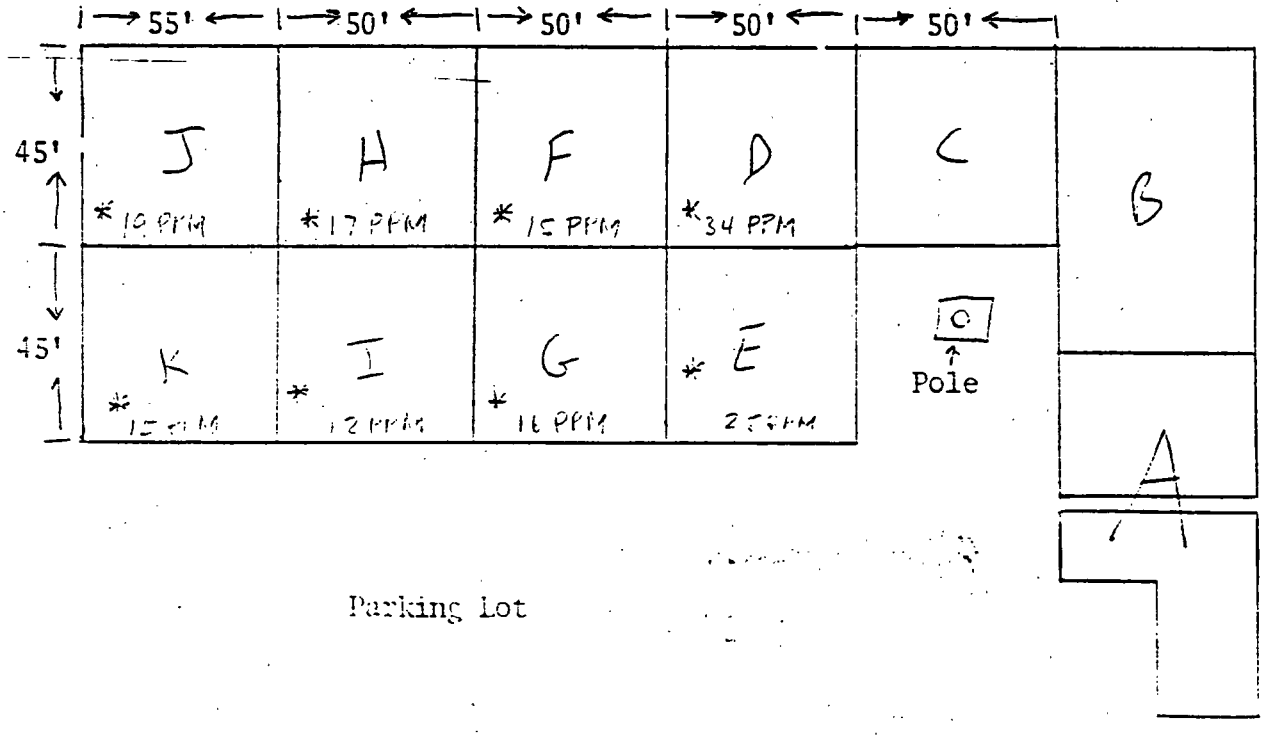
SKF Industries, Inc.
1000 Logan Blvd.
Altoona, PA 16602
Attn: Mr. Jerry Halbedl

Sampling Procedure for Dirt samples collected 10/13/88

The dirt pile was sectioned off into eleven (11) sections of approximately 50 ft x 45 ft. The measurements were made by SKF. Each section consisted of numerous piles of dirt made by trucks when they dumped their load.

The sample composites were collected by removing (by hand) a small (approximately 2-10 grams) sample of dirt from the top of each pile. The number of sample collections per composite reflects the number of dirt piles sampled in each section. The samples were collected in a glass bottle, sealed, and taken to Fairway Labs, Inc. for analysis. This procedure was not outlined by SKF as they did not volunteer any procedure when asked. The go ahead was given to the lab to sample as they wished using simplest method available.

* OIL & GREASE



ORIGINAL
(Red)

Soil Contamination Assessment Report
for
Underground Storage Tank Area

SKF USA Inc.
Altoona, Pennsylvania

May, 1988

Prepared by
Lancy Environmental Services Company
Division of Lancy International, Inc.
An Alcoa Separations Technology Company

Project #20693

Robert S. Bear
Project Manager

Roger A. Dhonau
Principal Environmental Engineer

ORIGINAL
(Red)

TABLE OF CONTENTS

ORIGINAL
(Red)

1.0 INTRODUCTION

SKF USA Inc. (SKF) owns and operates a facility at 1000 Logan Boulevard in Altoona, Pennsylvania in the manufacture of a variety of quality ball bearings. A site location map is provided as Figure 1. Operations at the facility, which initiated in the mid 1950's, include soft machining, heat treating, grinding, tool manufacturing, assembly and packaging.

In October, 1987, SKF broke ground adjacent to the northern wall of the Altoona facility to construct a 5,700 ft^2 addition to the plant. Land designated for the building addition includes a parcel measuring approximately 50 ft. x 25 ft. which contained four (4) 6,000 gallon underground storage tanks used to store various oils used in routine plant processeswhich were removed in February, 1988. Prior to initiation of tank excavation activities, SKF contracted Lancy Environmental Services Company (Lancy) to verify that soils surrounding the tanks, which were to be removed to allow the building addition, were free of any contamination.

During the excavation activities, arrangements were made to transport any visibly stained soils that may have been encountered to a secure waste disposal facility (Wayne Disposal, Detroit, Michigan, EPA I.D. No. MID048090633) to minimize future liabilities. Approximately 500 tons of soil were transported to this facility. A large portion of these soils were not visibly stained but could not be economically separated from visibly stained soils prior to disposal. Soils of uncertain contamination status

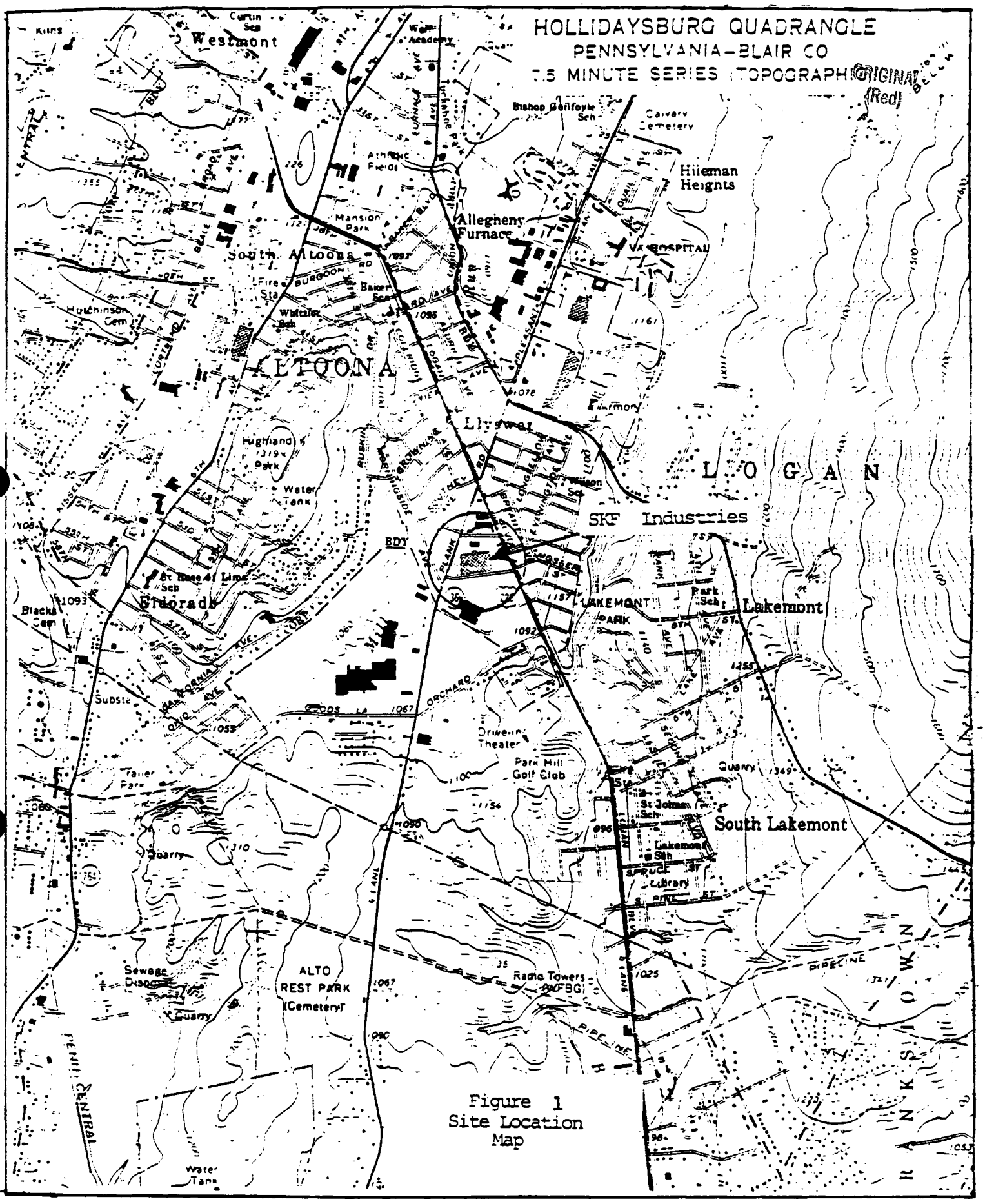


Figure 1
Site Location
Map

were excavated and stock piled on and under plastic sheeting until an appropriate disposal option could be determined.

Visual inspection of the excavation walls revealed a shale interval which is visibly stained with an oily substance. In addition, the excavation pit floor, approximately 12 feet below surface grade, intercepts a shallow aquifer. Standing water in the excavation pit carries a slight oil sheen, most likely due to interaction of the ground water with contaminated soils or shale in the area of the excavation. Analysis of the water taken from the pit floor revealed an oil and grease concentration of 120 mg/L. Analysis of a water sample taken from the excavation in a location upgradient of the underground storage tank area (near the northeast corner of the building) revealed an oil and grease concentration of 4 mg/L. Analysis of soil samples taken from six (6) locations on the pit floor resulted in oil and grease concentrations ranging from not detected to 2,600 mg/kg. Analysis of a stained soil sample found no volatile organics as identified by the analytical methods 8010 and 8020 (EPA manual SW-846).

Due to uncertainty of the source and extent of contamination, a decision was made to stop excavation activities, remove the fourth tank, and develop a formal site assessment plan. The purpose of this plan was to develop a procedure by which the vertical and horizontal extent and, if possible, the source of contamination could be better defined. The assessment plan was submitted to PADER in March, 1988. Upon approval by PADER, the assessment plan was implemented.

ORIGINAL
(Red)

The following sections describe the investigational procedures and results obtained during implementation of the PADER approved assessment plan. A proposed approach to remediation based on the results obtained is also provided.

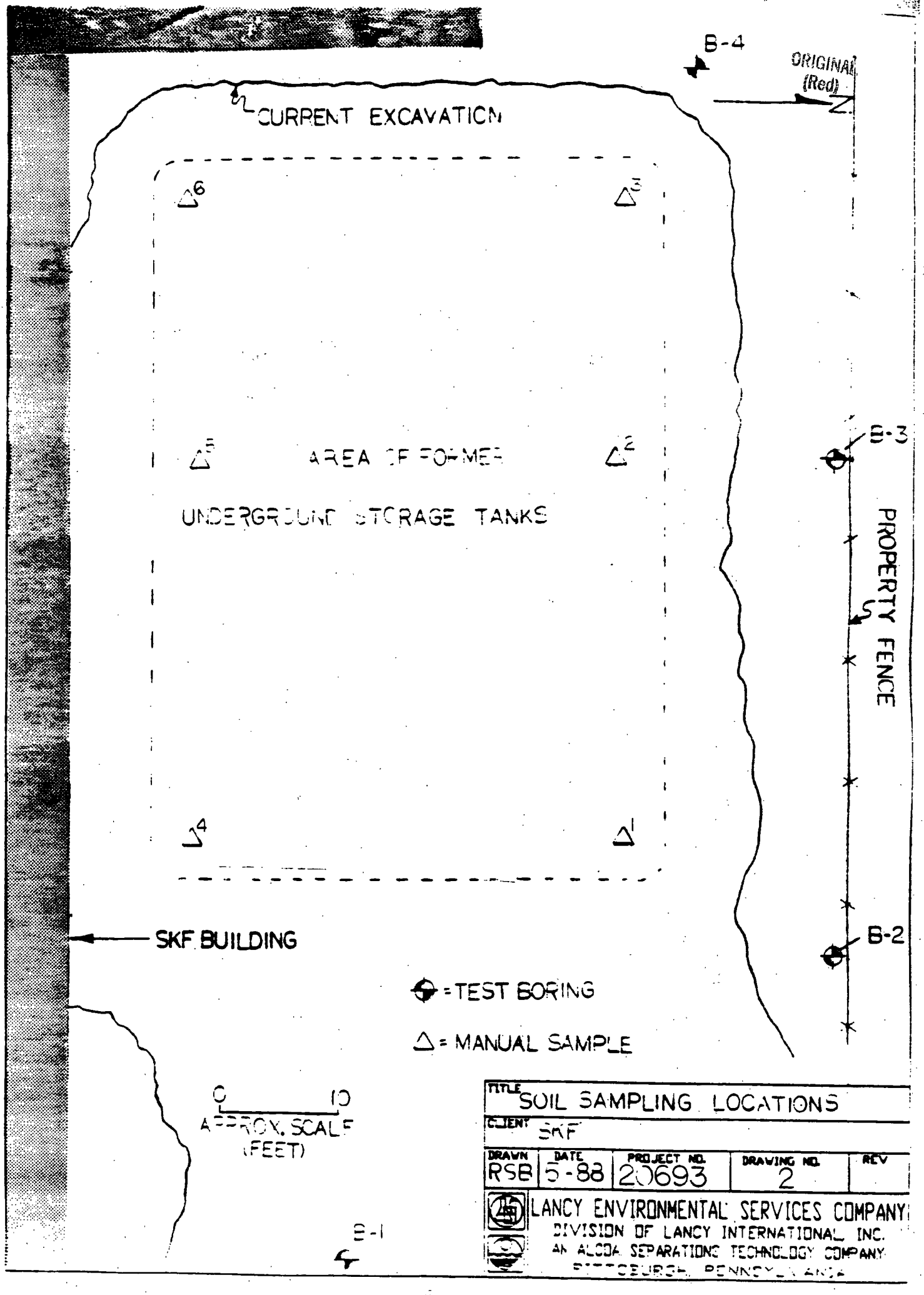
2.0 INVESTIGATIONAL PROCEDURES

Implementation of the assessment began on March 30, 1988. The following tasks were performed as a means to providing further data on the vertical and horizontal extent of contamination and to provide information necessary to develop an approach to site remediation.

2.1 Test Borings/Soil Sampling

On March 30 and 31, 1988, 27 soil samples were collected while drilling four (4) test borings at the locations illustrated in Figure 2. All drilling was performed by Continental Drilling - U.S. under the supervision of a Lancy Environmental Geologist. Hollow stem augering with continuous split-spoon sampling was employed to collect samples at two foot intervals from each boring to a depth of 14 feet or until auger refusal was encountered. Formal logs for each best boring are presented in Attachment 1. All split-spoons and auger flights were steam cleaned between samples and borings, respectively, to prevent cross-contamination.

In addition to samples collected from test borings, six (6) samples were collected from the existing pit floor at the locations identified in Figure 2. Since soils underlying the fourth underground storage tank are still in place, test pits were dug via track-mounted backhoe at sampling locations 3 and 6 to allow the acquisition of samples at the same depth below grade as all other pit floor samples. Samples were collected at each location via manual soil auger to a depth of six inches below the pit floor



TITLE: SOIL SAMPLING LOCATIONS				
CLIENT: SKF				
DRAWN: RSB	DATE: 5-88	PROJECT NO.: 20693	DRAWING NO.: 2	REV:

LANCY ENVIRONMENTAL SERVICES COMPANY
DIVISION OF LANCY INTERNATIONAL, INC.
AN ALCOA SEPARATIONS TECHNOLOGY COMPANY
PITTSBURGH, PENNSYLVANIA

surface. The manual auger was also decontaminated between samples to prevent cross-contamination.

2.2 Soils Analysis

All samples collected were transported to Lancy's laboratory for analysis. Samples from the pit floor as well as samples collected from the 4'-6', 8'-10' and 12'-14' intervals from each test boring (18 samples total) were analyzed for the following parameters:

Parameter	Units	Method[1]
pH	Su	9040
Oil and Grease	mg/Kg	9071
Volatile Organics	mg/Kg	8240
Arsenic	mg/Kg	7060
Barium	mg/Kg	6010
Cadmium	mg/Kg	6010
Chromium	mg/Kg	6010
Lead	mg/Kg	6010
Mercury	mg/Kg	7470
Selenium	mg/Kg	7740
Silver	mg/Kg	6010

[1]SW846, Test Methods for Evaluating Solid Waste, Third Edition, 1986.

In addition, the sample obtained from the 6'-8' interval of boring 3 was subjected to the above analyses since it was visually stained. None of the other test boring samples exhibited visual indications of contamination. Auger refusal was encountered prior to sampling the 12'-14' interval from boring 3.

ORIGINAL
(Red)

The composite sample collected from the stockpiled soils was subjected to the following PADER Module 1 analyses:

A. Total Waste Analysis

Total Residue	Volatile Organics	Arsenic	Nickel
Volatile Residue	PCB's	Barium	Selenium
pH	Heating Value	Cadmium	Silver
Cyanide, Total	Ignitability	Chromium	Copper
Oil and Grease	Reactivity	Lead	Molybdenum
	Coprrosivity (by pH)	Mercury	Zinc

B. Leaching Tests:

EP Toxicity with analysis of leachate for:

pH	Chromium, Total
Oil and Grease	Lead
Ammonia - Nitrogen	Mercury
Phenolics	Nickel
Cyanide	Selenium
Antimony	Silver
Arsenic	Copper
Cadmium	Zinc

ASTM Procedure with analysis of leachate for:

Chromium, Hexavalent
Cyanide, Total
pH
Total Organic Halides
Chemical Organic Demand
Total Organic Carbon
Volatile Residue
Total Filtrable Residue
Phenols

3.0 RESULTS

3.1 Site Geology

As depicted by the boring logs, (Attachment 1) visual inspection of the soil samples determined the overburden penetrated consists primarily of silts and clays with some sand and gravel. Published geological data indicate that the site is underlain by the Wills Creek formation which consists of thin, fissile, calcareous, gray shale with thin layers of limestone near the base and at many other horizons. Crystals of gypsum (hydrous calcium sulfate) have been observed near the base of the formation and probably occur at other horizons. The formation ranges from 400 to 750 feet in thickness.

Ground water found within the formation is highly mineralized, containing 1,000 to 2,500 ppm of dissolved solids largely due to calcium sulfate (gypsum) in the bedrock. These conditions render the aquifer undesirable as a source of drinking water.

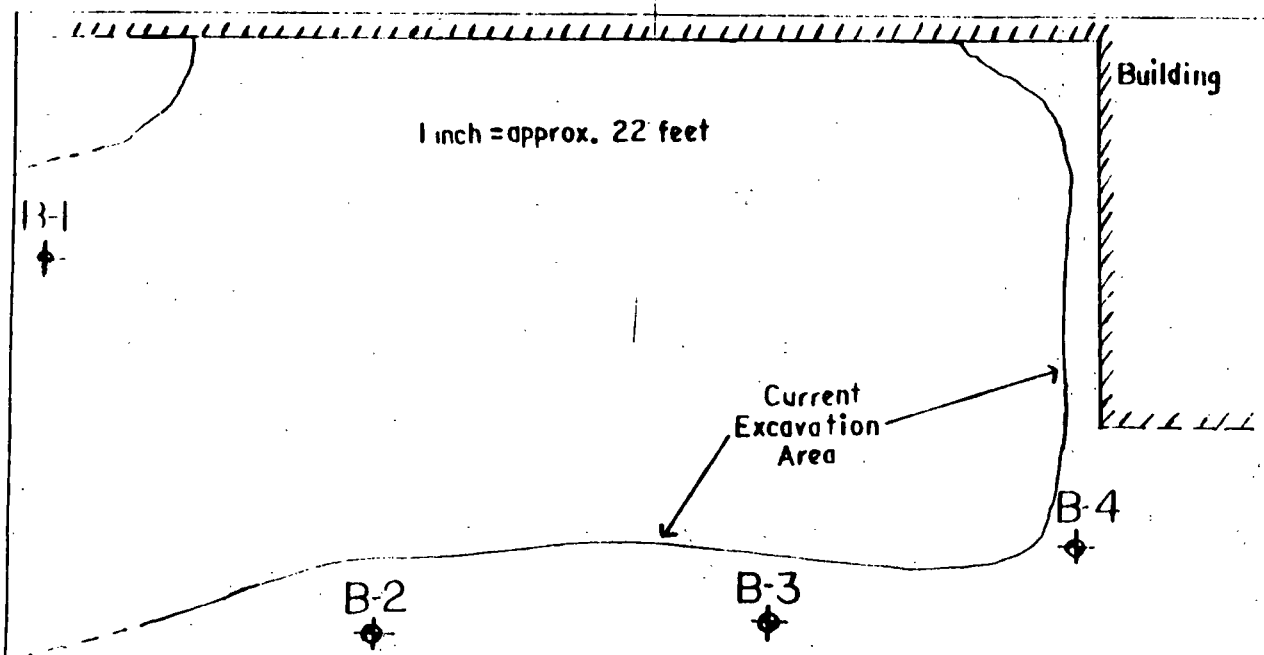
3.2 Soils Analysis

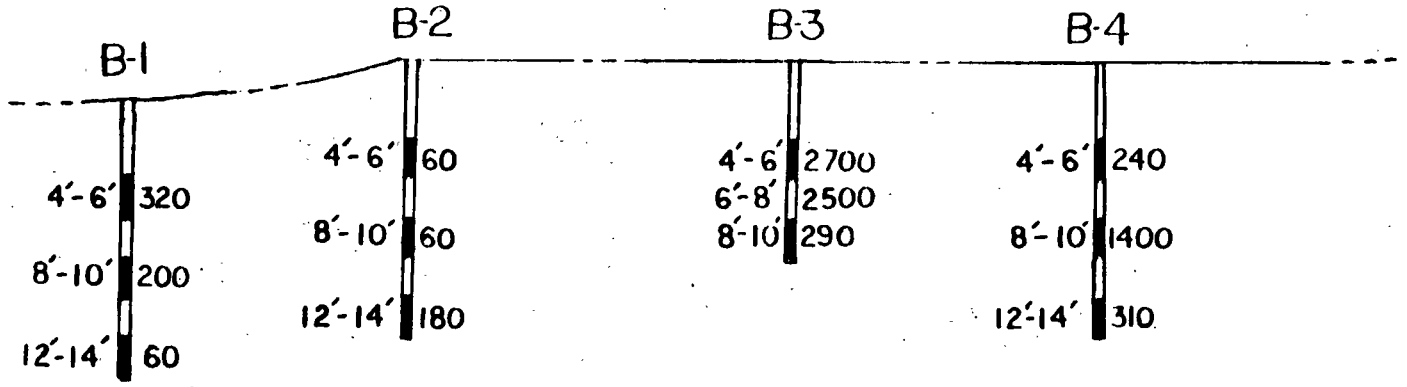
Data obtained from analysis of soils collected from test borings identify some oil contamination while all other investigated parameters were either non-detected or consistent with naturally occurring soil concentrations. All subsequent discussions therefore involve only oil and grease. A complete analysis report is provided in Attachment 2. No volatile organics were detected by the method selected for the assessment program (EPA Method 8240).

A cross-section of the site identifying the oil and grease concentrations from the test boring samples analyzed is presented in Figure 3. Concentrations present in the background boring (B-1) ranged from 320 mg/kg (4'-6') to 60 mg/kg (12'-14'). The highest levels were found in boring B-3 at the 4'-6' (2,700 mg/kg) and 6'-8' (2,500 mg/kg) sampling intervals. The 8'-10' sample collected from boring B-4 contained 1,400 mg/kg while concentrations found in the 4'-6' and 12'-14' intervals were similar to those found in the background boring.

Results of analysis of excavation pit floor samples, provided as Attachment 3 were consistent with test boring samples in that all parameters, with the exception of oil and grease, were either non-detected or typical of natural soil concentrations. Oil and grease levels were generally higher than test boring samples as would be expected due to the accumulation of low density oils at the top of the ground water table. Concentrations of oil and grease in pit floor samples are illustrated in Figure 4. Levels of oil and grease were high in manual (pit floor) samples 3 (14,000 mg/kg) and 6 (3,300 mg/kg). This correlates well with the stained shale/soil beneath the fourth underground storage tank.

The composite soil sample collected from the stockpiled soils also exhibited contamination from oil and grease only. The complete PADER Module 1 analysis results are provided in Attachment (4).



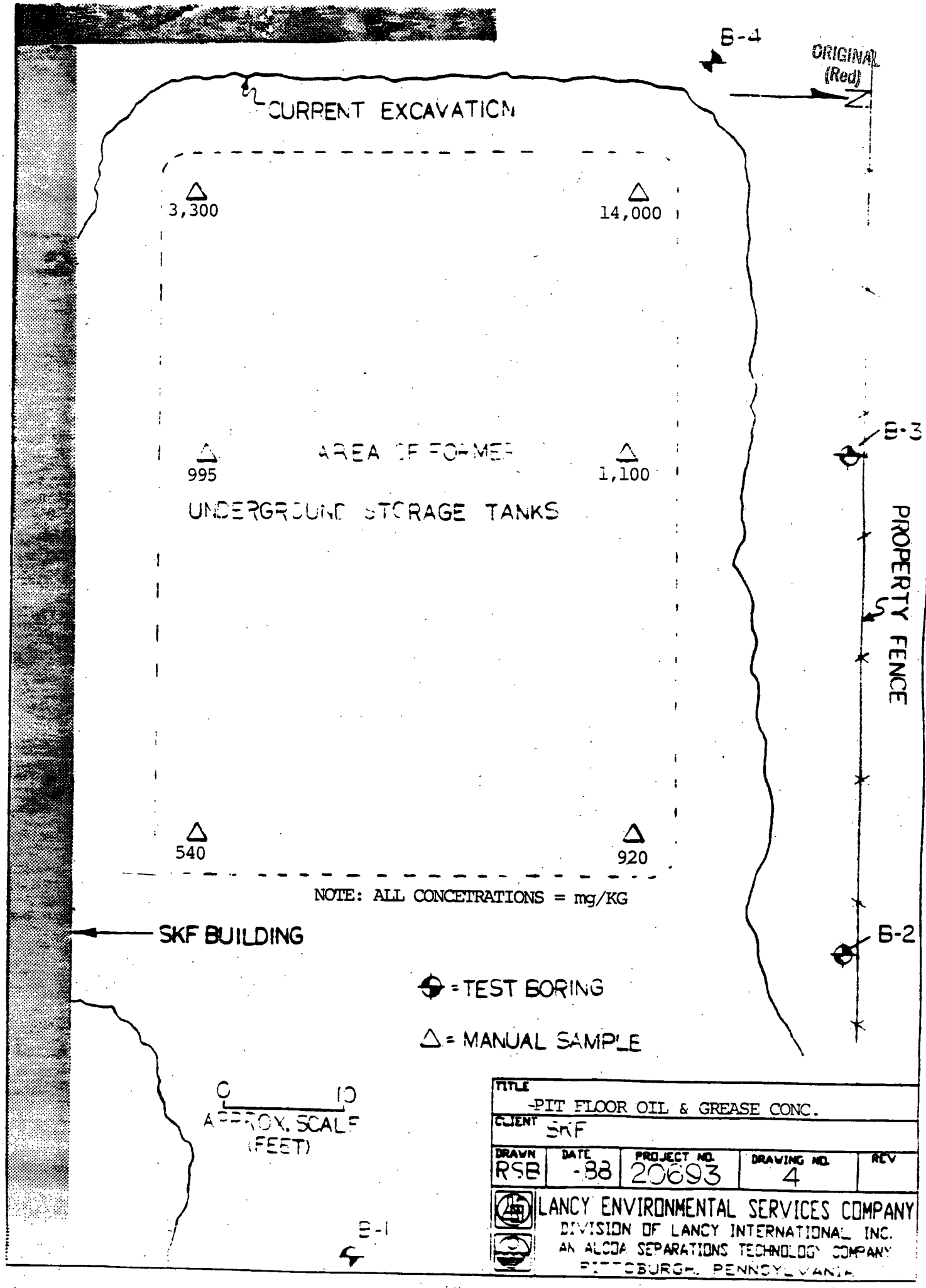


TITLE
Oil and Grease Concentrations (mg/kg)

CLIENT
SKF USA INC.

DRAWN	DATE	PROJECT NO.	DRAWING NO.	REV
jjk	5-10-88	20693	FIG-3	Ø

LANCY ENVIRONMENTAL SERVICES COMPANY
DIVISION OF LANCY INTERNATIONAL, INC.
AN ALCOA SEPARATIONS TECHNOLOGY COMPANY
PITTSBURGH, PENNSYLVANIA


B-4
ORIGINAL (Red)
CURRENT EXCAVATION
3,300
14,000
995
1,100
AREA OF FORMER
UNDERGROUND STORAGE TANKS
540
920
NOTE: ALL CONCETRATIONS = mg/KG
B-3
PROPERTY FENCE
SKF BUILDING
B-2
= TEST BORING
= MANUAL SAMPLE
0
10
APPROX. SCALE (FEET)
B-1
TITLE
PIT FLOOR OIL & GREASE CONC.
CLIENT SKF
DRAWN RSB
DATE -88
PROJECT NO. 20693
DRAWING NO. 4
REV
LANCY ENVIRONMENTAL SERVICES COMPANY
DIVISION OF LANCY INTERNATIONAL INC.
AN ALCOA SEPARATIONS TECHNOLOGY COMPANY
PITTSBURGH, PENNSYLVANIA

4.0 CONCLUSIONS/RECOMMENDATIONS

4.1 Conclusions

Data obtained in this soils investigation reveal that the subsurface in the vicinity of the proposed building is contaminated with an oily substance and that this material is concentrated at or near the overburden/bedrock interface which also bears a shallow aquifer. This conclusion is supported by the presence of the highest oil and grease concentrations in the 8'-10' sampling intervals and high oil and grease levels found in the excavation pit floor samples. Visual inspection of the site during excavation activities noted periodic opening of small pockets of the oily substance along the northern end of the excavation when the backhoe disturbed the fractured shale.

Oil and grease levels present in the shallow intervals of the background boring may be the result of on-site contamination but are believed to be more likely due to the unintentional use of oil-contaminated soils to backfill the area during the construction of the existing SKF facility since this area historically has not been used for industrial activities.

Since the majority of the contamination is in the immediate proximity to the former location of the underground storage tanks and soil underlying the fourth underground storage tank was observed to be visibly stained during excavation activities, the tanks appear to be a likely source of the contamination identified at the site. Visual inspection of the tanks upon

their removal did not reveal any cracks, holes, or seam failures which would have allowed a release of product; therefore, if the tanks were indeed the source of contamintion, it is presumed to be the result of spillage due to tank filling operations over the past 20-30 years or slow leakage through very small openings.

In order to assess the need for and possible approaches to remediation of the site, the following facts are offered based on the investigations completed to date:

- The subsurface is contaminted with an oily substance which appears to be concentrated at the shale/overburden interface.
- The oily substance contaminating the subsurface is free of other common contaminants such as metals, volatile organics, and PCB's.
- The fractured shale near the shale/overburden interface bears a shallow aquifer which naturally exhibits poor water quality rendering the aquifer undesirable as a potable water supply.
- The highest levels of oil and grease were found in test borings drilled immediately north of the excavation which appears to be hydraulically downgradient of the excavation. This is based on water movement across the excavation pit floor.

The actual need for site remediation should be determined through the performance of a hydrogeological evaluation of the site.

4.2 Recommendations

Based on the data obtained and the conclusions drawn from this investigation, the following tasks are recommeded to progress towards remediation of the site:

4.2.1 Soil Excavation

While excessive soil removal is not advised, some additional soils should be removed to ensure that the majority of heavily contaminated materials are removed from the site. These soils should be limited to that which was beneath the fourth underground storage tank down to the shale or existing pit floor depth. A 3-4 foot section of the northern wall of the excavation, between borings B-3 and B-4 (as illustrated in Figure 5), should also be removed. In order to properly dispose of those soils deemed necessary for off-site disposal, a PADER Module 1 application should be completed with a local residual waste landfill. Once approval for disposal is obtained, soils presently stock piled at the site could be transported to the residual waste landfill. The soils from beneath the fourth tank and between borings B-3 and B-4 should be included in this initial disposal. Soils which must be excavated for the building addition should be temporarily staged in two areas, one for soils presumed to be clean and one for soils suspected to be contaminated. PADER Module 1 analyses should be performed on composite samples from both staging areas. Any soils designated for off-site disposal could then be transported to the same facility as those soils in the initial disposal.

4.2.2 Hydrogeologic Assessment

In order to determine if further remediation of the site is necessary, and determine if sources other than the tanks are involved in the contamination scenario, a formal hydrogeologic assessment plan should be developed and submitted to PADER for approval. The plan

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company SKF — EPA ID No. _____
City/State _____ — Field No. _____
Contact _____ — Lab No. 8-4116-23
Telephone _____

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS.

SAMPLING DESCRIPTION:

Sample Location: B1 (See Map)
Boring/Well No.: B1 (12-14')
Depth of sample: 12-14'
Type of sampler: Trowel (Split-Spoon) Auger Other _____
Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): (GRAVEL) (SAND) SILT (CLAY) SOIL POWDER SLUDGE SLURRY OTHER _____
2. Size Distribution (percentage: 15 GRAVEL 70 SAND 15 FINES
3. Color (Munsell notation, if applicable): Shades of brown to light gray
4. Odor (circle one): NONE EARTHY ORGANIC OTHER _____
5. Moisture Content: DRY (MOIST) WET (SATURATED)
6. Density: LOOSE (DENSE)
7. Consistenty (if applicable): (SOFT) MEDIUM (STIFF) HARD
8. Structure: (STRATIFIED) BLOCKY (NONSTRATIFIED)
9. Local or Geoligic Name: _____
10. Other Information: _____

SAMPLE TAKEN BY: RCW — DATE: 3-31-88
WITNESS: _____ — DATE SHIPPED: _____

FOR LAB USE ONLY

CUSTODIAN Frances P. McCready — DATE RECEIVED: 4-6-88
REPORTER _____ — PERIOD OF ANALYSIS: 4-22-88
DATE OF REPORT: 6-22-88

SHIP TO:

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527

DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company

ORIGINAL (Red)

HAZARDOUS WASTE/SOIL SAMPLING RECORD

Company SKF

City/State

Contact

Telephone

EPA ID No.

Field No.

Lab No. [illegible]

CAUTION: WEAR NECESSARY PROTECTIVE GEAR AND CLOTHING AND OBSERVE SAFETY PRECAUTIONS.

SAMPLING DESCRIPTION:

Sample Location: B2 (See Map)

Boring/Well No.: B2 (0-6')

Depth of sample: 4-6'

Type of sampler: Trowel Split-Spoon (circled) Auger Other

Number of Grab Samples: 1

SAMPLE DESCRIPTION:

1. Typical Name (circle): GRAVEL (circled) SAND (circled) SILT (circled) CLAY (circled) SOIL POWDER SLUDGE SLURRY OTHER Fill
2. Size Distribution (percentage: 30 GRAVEL 15 SAND 55 FINES
3. Color (Munsell notation, if applicable): Light brown
4. Odor (circle one): NONE EARTHY ORGANIC OTHER [illegible]
5. Moisture Content: DRY MOIST (circled) WET SATURATED
6. Density: LOOSE DENSE (circled)
7. Consistenty (if applicable): SOFT (circled) MEDIUM STIFF HARD
8. Structure: STRATIFIED BLOCKY NONSTRATIFIED (circled)
9. Local or Geoligic Name:
10. Other Information:

SAMPLE TAKEN BY: RCW

DATE: 3-30-88

WITNESS:

DATE SHIPPED:

FOR LAB USE ONLY

CUSTODIAN Frances P. McConahy

REPORTER [signature]

DATE RECEIVED: 4-6-88

PERIOD OF ANALYSIS: 4-22-88

DATE OF REPORT: 5-24-88

SHIP TO: LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL INC.
An Alcoa Separations Technology Company
181 Thorn Hill Road
Warrendale, Pennsylvania 15086-7527